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ANNALS

OF

INDIAN ADMINISTRATION.

BEING 108545

A FULL ANALYSIS OF EVERY RECORD ISSUED BY THE VARIOUS INDIAN GOVERNMENTS DURING THE YEAR 1860-61, AND OF THE MORE IMPORTANT PARLIAMENTARY PAPERS ON INDIA.

VOLUME V.

SERAMPORE:

PRINTED BY MARSHALL D'CRUZ.

1861.

Errata.—Page 448, line 12, for 90,180 acres read 9,018 acres ; and for 5,227 acres read 1,260 acres.

ADVERTISEMENT.

THE Governments of India publish, on an average, a volume every four days. From reports affecting the entire Empire to accounts of local drainage, from the opinions of the ablest officers to the cost of a *cutcha* bye-road in a frontier province, every thing finds a place in these publications. There is scarcely a subject connected with Indian Administration on which they do not exhaust official knowledge. There is no officer in the country who may not obtain from them, in reference to his special task, all the advantages of experience. The information thus vast is, however, widely scattered. The Records of one Presidency are scarcely known in another. The books are not very readily procurable, and above all they are, like all other blue books, dry, ill digested, and overlaid with detail. It costs an hour to find a fact, and in India men who care about facts cannot spare hours.

The object of the Editor is to remove this defect, to do for the official information of India, what Mr. Leone Levi is doing for the blue books of England. The Annals comprise every fact, and almost every opinion of importance, in the Records of the year. A copious Index enables the reader instantly to refer to the subject of which he is in search, and any peculiarity of opinion and even of style is carefully retained.

A word may be necessary on the arrangement adopted. It is intended that the most important subject should have the largest space, but in estimating the relative importance of the records the Editor has been compelled to rely on his own judgment. Usually all subjects of Imperial interest have the preference, statistics occupy the next place, and subjects purely historical the last.

As a rule all Records received a month previous to the publication of each quarterly Part, are analysed in that Part. But several are published years after the date to which they refer. The Madras Land Revenue Report, for instance, for 1857-58, is not reviewed by the local Government till September 1859, is not printed till the end of 1860 and does not reach Calcutta till September 1861. The analysis consequently appears in the December Part of the Annals. The same is, *cæteris paribus*, true of the Report of Public Instruction in Bengal for 1859-60. For the future this delay is not likely to take place, the Annual Administration Reports for 1860-61 having partially appeared as the December Part of the Annals was passing through the Press.

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THE

ANNALS

OF

INDIAN ADMINISTRATION.

THE CALCUTTA COURT OF SMALL CAUSES.

1859-60.

On the 8th of June 1860 the Judges of the Calcutta Court of Small Causes submit their Report on the business of the Court during the year ending 30th April 1860.

The number of cases instituted was 32,287 against 29,956 the previous year. The daily average of cases was 129. The net amount credited to Government on account of fees, &c., was Rs. 1;32,144-3-7 while the total expense of the establishment was Rs. 1,04,139-15-8 leaving a balance in favour of Government of Rs. 28,004-3-11. These results show a considerable increase in business during the past year as compared with any previous year since the establishment of the Court. Of the 32,287 cases instituted only 17,995 were actually tried; 13,657 were decided in favour of plaintiff; 4,338 were dismissed or non-suited; 14,088 were compromised before being called on for hearing, or were struck out for non-appearance of the parties, and 204 remained undecided. The number of summonses issued showed a decrease, owing to the practice of filing duplicate summonses having been discontinued. The following is a comparative table of the business of the Court for two years.

		9th Year 1858-59.	10th Year 1859-60.
Number of Cases,	English, ...	5450	6452
	Native, ...	24506	25835
	Total, ...	29956	32287
Amount litigated, ...		765412 11 1	935003 0 9
Commission and Fees paid into Court on institution of Suits, ...		109260 7 6	133317 7 6
Net Amount credited to Government, ...	Net Amount of Commission and Fees credited to Government on Suits, ...	107918 0 9	128992 15 3
	Ditto on Distress for Rent,	839 0 0	1482 12 0
	Amount credited to Government on account of Fines,	202 8 0	191 12 0
	Ditto on account of unclaimed monies belonging to Suitors and Landlords, ...	1868 0 3	1467 12 10
	Ditto on account of savings from Salaries, sale of old Furnitures, Records &c.,	88 2 9	8 15 6
	Net Total Amount credited to Government in the Cash Accounts, ...	110915 11 9	132144 3 7
Amount paid into Court under decrees ...		184062 0 10	216926 14 10
Amount paid out of Court on Account of decrees,		184084 3 2	216302 0 2
Number of days on which the Court was open,...		246	249
Average number of Cases instituted daily, ...		121·7	129·6
Cases under Rupees 10, ...		16067	17032
„ „ „ 20, ...		5850	6118
„ „ „ 50, ...		4745	4869
„ „ „ 100, ...		1618	2088
„ „ „ 200, ...		932	1205
„ „ „ 300, ...		387	483
„ „ „ 400, ...		172	257
„ „ „ 500, ...		185	235
Number of Summonses issued, ...		70012	42877
„ Second Summonses, ...		1358	757
„ Subpœnas, ...		23279	25414
„ Attachments, ...		337	378
„ Writs of Execution, ...		7694	8203
„ Bench Warrants, ...		14	25
„ Copies of Judgments, ...		236	348
„ Commitments, ...		539	666
Warrants to sue and defend, filed, ...		4574	5088
Judgments for Plaintiffs, ...		12447	13657
Judgments for Defendants, ...		1412	1617
Nonsuits, ...		2996	2721
Struck out and Compromised, ...		13133	14088
Undecided, ...		91	156
Amount of half costs returned in Cases compromised, ...		14722 8 6	17889 5 3

ADMINISTRATION OF THE PUNJÀB TERRITORIES.

1859-60.

JUDICIAL.—*Civil Justice.*—For the whole territory no less than 1,38,821 original suits were instituted; and of these, 14,327 remained undecided at the end of the year. Excluding from the comparison the divisions of Delhi and Hissar,—the returns from which were, in 1858, incomplete,—59,043 additional suits were instituted in 1859. This increase was caused by the knowledge that the new rule of limitation reducing the term from 6 to 3 years would come into play in November. Justice too had become cheaper by the graduation of the cost of law processes, and cases of dispossession more numerous. The trials, on an average, were over in 23 days; about one-third of the cases were got rid of by confession of judgment by defendants. About 40 per cent. were decreed in full; 14 per cent. given in favor of defendants; 19 per cent. arranged by razeenamah; 7 per cent. dismissed in default and non-suited. The Tehseeldars tried about two-fifths of the cases decided. The average value of each suit was nearly 61 rupees. It is remarkable that the value of suits was less by one-half than in 1858. The percentage of costs was rupees 5-3-5. About 8 per cent. of the decisions were given by arbitrators. The new rule regarding the compulsory registration of certain descriptions of bonds, increased the number annually registered from 225 to 1845.

Reforms in Civil Law and Procedure.—The period of limitation, reduced in 1856 from 12 to 6 years, was farther reduced to 3, in certain cases of sums claimed on bonds and accounts. To check creditors, bonds for sums above 50 rupees, were required to be registered either at the Tehseel or zillah courts, and accounts to comprehend both a ledger and day-book. As costs fell with proportionate severity on suits for small sums a new scale was adopted creating an *ad valorem* tax on the amount at the rate of 2½ per cent. the same as institution fee. A surplus of half a lakh of rupees thus accrued to the State. Process fees chargeable for the execution of decrees were commuted to an *ad valorem* tax of one per cent.

Of 27 applications made for the sale of ancestral lands in execution of decrees only 9 were sanctioned. In 16 the land was made over for a fixed period to the creditor.

The result of continuing to require the presiding officers to record proceedings in English was a general opinion that, with practice, the labor is by no means so excessive as to out-weigh the many acknowledged advantages of this method of record.

Criminal Justice.—The year 1859 is the first for which statistics of crime, embracing the Punjab and its Dependencies, were forthcoming. They show that, in all, 46,918 crimes were reported, being one offence to 324 persons; of these, 23,692, or 1 to 641 persons, are classed as *heinous*, and 23,226 as minor. Leaving out the Delhi and Hissar divisions, (the returns for which for 1858 were not complete) it is shewn that there was as increase of 658 heinous, and a decrease of 303 minor offences. Murders were more numerous by 11; in the Peshawur district alone 43 were committed. No case of thuggee was reported, and robberies of all kinds, attended with murder, decreased. But cases of wounding, with intent to murder, rose by 17, principally in the Peshawur district. Crimes of the second degree of atrocity also somewhat increased. Culpable homicides were more frequent by 11 cases. Aggravated robberies rose in number, though in a less degree. There were 38 additional cases of aggravated assault; 10 of administering poisonous drugs; 41 of rape, 5 of incest, and 26 of unnatural crime. Amongst crimes of the third degree of atrocity, arson increased by 30 cases; simple dacoitees by 7; simple thefts were about the same as in 1858; the ratio of cattle thefts to other crimes increased; highway robberies diminished by 10, and burglaries by 191. In the fourth class of heinous crimes there was an addition of 390 cases under the head of adultery; but formerly many of these cases were classed under the denomination of "abduction." Including minor offences 47,580 persons were convicted and 7,879 acquitted:—

	1859. per cent.	1858. per cent.
Proportion of cases brought to trial to cases reported,	75·86.	74·54.
Proportion of persons acquitted to the number tried,	25·91.	31·08.
Proportion of stolen property recovered,	27·50.	29·39.

There were 56 capital punishments; 83 persons were imprisoned for life: 24 for periods exceeding 12 years. Only 1,225 were committed to the sessions courts,—a remarkably small number compared with former years, and attributable to the extended powers of the magisterial tribunals. In 1859 1,009 were imprisoned with flogging against 339 in 1858; 1706

were imprisoned with fine and flogging against 30; 25,183 were simply flogged against 22,134, and 686 were fined and flogged against 26. Original trials occupied, on an average, nine days, in cases in which the police were employed, and seven days otherwise. Sessions trials averaged 17 days. Out of 90,975 witnesses, 81,224 were detained only one day.

The Changes in Criminal Law and Procedure the previous year resulted in a diminution in the number of persons sentenced to imprisonment; the abridgment of the terms of imprisonment; and the more frequent resort to flogging and fine. The number of convicts in jail at the end of the year, also declined from 11,862 in 1858, to 10,000 in 1859. By extending the powers of the Deputy Commissioners the number of persons disposed of by the Commissioners fell from 1,736 to 1,029. Under the regulation making it penal to introduce girls of tender age into brothels, 69 girls were rescued and withdrawn, 36 were restored to their parents, and 33 made over to other parties. It was ascertained that 1,034 girls, who are alleged to have been born in brothels, still remain in them. Mr. C. U. Aitchison compiled a "Manual of Punjab Criminal Law;" and a committee under Mr. R. N. Cust diminished the bulk of the periodical returns required in all departments. There was a slight Mahommedan agitation caused among the ignorant by ostentatious accounts in the native papers of the appearance in Arabia of an Imam,—commonly identified with the "Imam Mehndee,"—a prophet expected by the Mahommedans at the end of the world. A fakeer was executed for distributing seditious papers in Sealkote.

Police.—The gradual extinction of infanticide was noticeable as may be seen from the fact that amongst the Bedees,—the hereditary priesthood, descended from Baba Nanuk,—resident at Dehra in the Goordaspoor district, there are now one hundred and seventy-two girls. None of these was more than eleven years of age. In Kangra the female were in excess of the male births. Of 1,923 girls born during the year rather more than a fourth died. Unnatural crime was on the decrease. Thirty persons were arrested during the year for Thuggee. One man,—a descendant of Wuzeer, who first introduced the crime into the Punjab,—was executed at Lahore, three murders being proved against him. There was no case of dacoitee. Poisoning by *datoora* so much increased that the possession of the concealed drug, it is recommended, should be made a criminal offence. A somewhat successful experiment was made in inducing the Gipsy

tribe of Sansees to till the ground. The following is a comparative return of the strength and cost of the civil police:—

	Strength.	*Cost per mensem.*
On 1st January, 1859, ...	... 11,183	77,226.
Ditto, 1860, ...	... 11,292	80,125.
Increase, ...	... 109	Rs. 2,899.

The Jails were healthy, the average rate of mortality being 2.35 per cent. The actual disbursements were reduced to four lacs per annum, being a saving of nearly 40,000 rupees on the previous year; but deducting the cost of the permanent guard, the real expenditure was only 2½ lacs of rupees. The cost of each prisoner was rupees 16-14-4, as low as it can be brought. Each employed prisoner earned about 8 rupees, and the total gain was half a lac. The admissions in 1858 amounted to 33,656, and in 1859, declined to 22,117. The number of convicts in jail at the end of the year, decreased from 11,862 to 10,000.

REVENUE—*Land Tax.*—There was a slight decline owing to reductions of assessment:—

Year.	Demands.	Collections.	Balances.	In train of liquidation.	Doubtful or undetermined.	Irrecoverable.	Nominal.
1858-59,	1,87,79,783	1,82,26,791	5,52,992	43,398	76,590	2,00,263	2,29,420
1859-60,	1,86,13,196	1,81,68,735	4,44,465	33,072	53,787	1,59,776	1,97,830

Though the fall of rain was below the average, the harvest was unusually fine.

There was an increase of Rs. 71,001 in the Customs, Excise and Opium. The incorporation of the Delhi territory made the salt revenue an important source of income. There was an increase of Rs. 64,099. There was an increase in the canal revenue of Rs. 81,459, caused by the accession of the Western

Jumna Canal. There was an increase of Rs. 5,53,421 under the head of "Stamps and Miscellaneous."

Trade Tax.—Pending the perfection of the comprehensive financial measures of the Legislative Council, and in consideration of the deficiency of specie to which the inland situation of the Punjab renders its administration liable, the Viceroy sanctioned the imposition of certain taxes proposed by the Lieutenant Governor. The foundation of these was the scale of licence duties originally proposed in the Legislative Council, and which in effect amounted to an income tax of three per cent. on all incomes below two thousand rupees. In the assessment of these duties, a general apprehension was found to pervade the principal cities, of the inquisition necessary to the computation of the income of individuals. And the leading city of Umritsur offered to contribute to the State a sum equivalent to that which might be estimated to accrue from the income tax, by trebling the town duties already levied for municipal purposes, rather than submit to the appraisement of private fortunes. At the time, no general fiscal policy had been laid down; and in the Punjab it was considered of greater importance to raise the revenue, without delay and without creating discontent, than according to the theoretical canons of taxation. The Lieutenant Governor therefore empowered the local authorities to allow the large cities to compound for the income tax, by raising an equal revenue through the town duties. In petty boroughs and villages, the income tax took effect. In some districts, especially in the Mooltan division, town duties were rarely levied, and the whole non-agricultural population was made to contribute at the rate of three per cent. on their incomes. The scheme had certainly the merit of being well adapted to the people concerned, of being submitted to willingly and without complaint, and of extreme cheapness of collection. It also had the effect of preparing the minds of the people for the general measures of the legislature. Many of the Jageerdars, for instance, will now rather gain than lose by the income tax; and the apprehension of the towns-people must have been much diminished by the treatment of their brethren in the villages. The town duties did not prove to have been pitched so high as to interfere with trade. The yield of these taxes for six months was Rupees 9,75,807.

The total increase was Rs. 18,04,758 springing chiefly from the bold inroad which was this year made on the non-agricultural hoards, which had never before paid duty to the State.

Year.		Land Tax.	Tribute from dependent States.	Spirits, Drugs, Opium.	Salt.	Canal Income.	Trade Tax.	Stamps and Miscellaneous.	Total.
1858-59,	Rs.	1,82,26,791	3,05,929	6,74,356	48,87,629	3,89,741	...	20,86,208	2,65,70,654
	£	1,822,679	30,592	67,435	488,762	38,974	...	208,620	2,657,065
1859-60,	Rs.	1,81,68,735	4,22,956	7,45,357	49,51,728	4,71,200	9,75,807	26,39,629	2,83,75,412
	£	18,16,873	42,295	74,535	495,172	47,120	97,580	263,962	2,837,541
Difference,	Rs.	—58,056	+1,17,027	+ 71,001	+64,099	+81,459	+9,75,807	+5,53,421	+18,04,758
	£	—5,805	+11,702	+7,100	+6,409	+8,145	+97,580	+55,342	+180,475

EDUCATION.—Up to this year the working of the department had been unsatisfactory, owing to the inferiority of the native superintendents; the excessive extent of the circles superintended by the European Inspectors, each including some 600 schools; the dissociation of the department from the civil authorities; and the incapacity of the Schoolmasters. By the new scheme, the native superintendents were dismissed; the supervision of the Vernacular schools was transferred to the District officers, and the expense of Tehseelee schools to the 1 per cent. fund; arrangements were made to increase the number and efficiency of the Normal Schools; a commencement was made on the establishment of High Schools at the chief towns in the principal districts; aid to private schools was increased in amount; and the Director of Public Instruction was placed in direct communication with the local Government. Excluding the pupils, said to number 63,090, at indigenous schools, the attendance was as follows:—

YEAR.	Hindoos.	Mahomedans.	Others.	Total.	Average daily attendance.
1858-59, ...	21,653	13,521	2,780	37,954	34,718
1859-60, ...	24,493	17,016	4,177	45,686	42,388

The total expenditure from all sources was a little short of 3½ lakhs:—

Cost of supervising establishment,		93,643	10	6
Cost of Government schools,	...	65,521	3	3
Schools in receipt of aid,	...	26,851	6	9
Cost of one per cent. schools,	...	1,56,442	5	1
Total,	...	3,42,468	9	7

The amount contributed by the State was Rs. 1,62,622-8-6; and of this, rupees 68,978 were spent on schools, not on supervision. The number of books sold increased from 29,579 to 53,225. The amount of grants to private schools was increased from 6,812 to 8,960. At the request of the Sikh Sirdars a first class school was established as the nucleus of a college at Lahore for the sons of persons who are eligible for the Governor General's Durbar. It had 60 boys. A lower department numbered 80.

PUBLIC WORKS.—*Roads.*—To fill up the great break in the Grand Trunk Road between the Sutlej and Lahore, one layer of metal was laid for 30 miles. When the section between the Beas and the Sutlej is finished the road for 390 miles from Delhi to Lahore will be macadamized. The progress of the Lahore and Peshawur road was somewhat retarded, from the difficulty of procuring labour. The expenditure amounted to nearly two lakhs of rupees. A road between Murree and Abbottabad was under construction, in length about 32 miles. The expenditure by the Chief Engineer, on communications, amounted to nearly 8½ lakhs.

Canals.—114 miles of the Baree Doab, out of the 287 commenced upon, were opened. The revenue for 1860-61 is estimated at 1½ lakhs. The total expenditure, from the commencement, was nearly a million sterling, or Rs. 96,29,189. During the year, Rs. 8,92,332 were spent. The old native Huslee Canal brought in an income of Rs. 94,240 against Rs. 29,039 of expenditure. The expenditure on the Upper Sutlej Canals was Rs. 39,855 and on the Lower Rs. 41,672. The inundation of the Indus was not so severe as usual. The irrigation from the Indus Canals extended from 1,07,465 beegahs in 1856-57 to 1,63,555 in 1859-60. The total expenditure on the Punjab Canals was Rs. 10,60,331. Of the Western Jumna Canal Captain Turnbull, Superintendent General of Irrigation, says. "I calculate that the revenue for the past year will not be less than 3,60,000 Rs., while the current expenses and establishment will not cost more than 1,60,000, leaving a clear profit to the Government of two lakhs of rupees, independent of the indirect revenue obtained through the land-rents of the Paneeput, Delhi, Rohtuck, and Hissar districts, which, in a season of drought like the past, entirely depend on the Canal water, and the efficiency of the Canal. But unfortunately, since the bed is in many cases above the level of the country, the soil has deteriorated."

Railway.—The embankment on the Lahore and Umritsur line was finished and nearly the whole of the permanent way was delivered. The total expenditure on works last year is reported to be rupees 3,22,306. The total sum drawn by the Lahore and East Indian Railway Companies from the Punjab Treasuries, was rupees 12,29,000.

Military.—At Delhi, the mud houses in the palace enclosure were demolished, other houses were knocked down, but the *Da-*

reeba, the celebrated Hindoo street, was spared. Out of ten barracks necessary for the accommodation of two regiments of European infantry at Rawul Pindee, three were completed. Five more were to be ready in December 1860. Iron frame barracks at Mooltan and Mean Meer were finished and those at Ferozepore were nearly ready. The total expenditure on military works was rupees 10,97,360. The epitaph was cut on the obelisk at Mooltan raised to Mr. Vans Agnew and Lieutenant Anderson.

The total expenditure in this department is exhibited in the subjoined table :—

WORKS.	1858-59.	1859-60.	Previous Expenditure.	Total.
1st.—Roads, ...	6,95,906	10,52,674	1,23,77,627	1,41,26,207
2nd.— Punjab Canals, ...	11,21,375	10,95,960	77,22,350	99,39,685
2nd.— Jumna Canals, ...	Not known.	1,60,000	Not known.	Not known.
3rd.—Miscellaneous, ...	3,66,805	2,21,268	29,00,800	34,88,873
4th.—Military, ...	12,98,292	15,15,271	1,46,37,237	1,74,50,800
Total, ... Rs. ...	34,82,378	40,45,173	3,76,38,014	4,50,05,565
Total, ... £ ...	348,237	404,517	3,763,801	4,500,556

The expenditure from local funds amounting to 4,86,858 is not included.

Post Office.—5,50,319 letters passed through the district posts against 4,66,934 the previous year. The correspondence had more than trebled since 1855-56.

The Electric Telegraph communication was completed by a line to Dehra Ghazee and Dehra Ismail Khan. The expenditure was Rs. 1,03,201 and receipts Rs. 34,613.

Marine.—3,806 boats of 14,85,212 maunds or 53,043 tons shew the traffic on the Indus.

FINANCE.—The following comparative statement exhibits a considerable improvement in the Punjab finances :—

Year.		Receipts.	Disbursements.	Surplus.
1858-59,	Rs.	2,74,99,141	1,82,94,296	92,04,845
	£	2,749,914	1,829,429	9,20,484
1859-60,	Rs.	2,95,70,583	1,76,96,410	1,18,74,173
	£	2,957,058	1,769,641	1,187,417

In computing the surplus, the cost of the regular army, and of constructing cantonments, (which are imperial charges) are, as usual, omitted. "But that the surplus from the local revenues should amount to so much as 118¾ lakhs, or more than one-third of the whole receipts, is a highly satisfactory result." The cash balance in the treasuries was 140 lakhs on 1st May 1860, or exactly double what it was last year. The Punjab six per cent. loan outstanding at the end of the year, amounted to 11¾ lakhs. During the year, rupees 70,000 were paid off.

POLITICAL.—Our relations with the *Ameer of Cabul* continued undisturbed. His Highness' forces, under the command of his son Mahomed Afzul Khan, conquered the neighbouring State of Koondooz, and procured the submission of Budakshan; thus advancing the Affghan frontier to the river Oxus. The policy of the Ameer is to carry on the administration through the local chiefs, maintaining strong garrisons of his own troops at some of the principal places, and a line of posts on the Oxus.

The Hussun Khayl Wuzeerees, having previously been guilty of outrage within our borders, attacked the people of Thull, which, though beyond the Khoorum considered as the frontier, belongs to our subjects. After a party of the assailants had been seized they agreed to pay for the injury done to British subjects. A gang belonging to the *Kabyl Khayl Wuzeerees* murdered Captain Mecham of the Bengal Artillery while proceeding from Bunnoo to Kohat early in November. On the 20th December, Brigadier General Chamberlain crossed the Khoorum, with a force of some 4,000 men, besides irregular levies, and defeated the tribe on a range of hills called Maidanee. The ringleader was subsequently seized and executed on the scene of murder. The country was accurately surveyed. *The Muhsood Wuzeerees* soon after attacked a Cavalry outpost at Tank. The native officer summoning the detachments from the neighbouring posts, advanced with about 160 sabres and a few of the Nawab's men, against the Muhsoods, who number-

ed some 3,000. On coming within gun-shot, the Ressaidar pretended to retreat, but on the Muhsoods pursuing irregularly, faced his horsemen about and chased back the broken and flying hill-men to their fastnesses, with the loss of a tenth of their number. General Chamberlain at once went against them with a force, defeated them in their passes, and took their chief towns Kaneegorum and Mukeem. In four years the Pindiali Momunds had committed 19 raids on our subjects and had yet to be punished.

In the course of his progress the Viceroy and Governor General held a durbar at Umballa, on the 18th January 1860, which was attended by all the Chiefs of the Cis-Sutlej States. On this occasion, a question of precedence,—which has long been contested between the Rajas of Jheend and Nabha,—was settled in favor of the former. The debt contracted by the British Government to the Maharaja of Putialah and the Raja of Nabha, amounting to Rs. 28,62,000, was redeemed, under an arrangement which increases the territory and revenue of the two States, and at the same time relieves our administration of the outlying pergunnahs of Kunoudh and Boodwanah, and permits of the amalgamation of the two districts of Rohtuck and Jhujjur, and of a permanent reduction of expense. In the same way, the domains of the Raja of Jheend were augmented, on his payment of a nuzzurana of Rs. 4,20,000. In December, the daughter of the Maharaja of Putialah was married to the Maharaja of Bhurtpoor. Both families are of the Jat tribe. Certain Jagheers were restored to the Rajah of Kuppoortollah. The Viceroy restored the Sovereignty of the Hindoor State in the person of Uggur Singh, an illegitimate son of the late Rajah. Measures taken for the restoration of order in Bussahir proved successful. In a durbar held at Lahore on the 14th of February, the Governor General announced the intention to bestow magisterial and revenue powers on certain selected Chiefs and Jagheerdars. Since then, twenty-seven Chiefs had been invested with a limited jurisdiction in all departments, subject to an appeal to the district Officers. This measure gave great satisfaction to the higher classes in the Punjab. The Mahomedan population excluded from the city of Delhi, on its capture by our troops, were allowed to return, and the attachment was taken off their houses.

MILITARY.—On 1st May 1860 there were in the Punjab.

Europeans	19,754	of all arms.
Natives	46,952	ditto.

The Local Troops shewed a decrease, effected between the 1st May 1859 and the 1st May 1860, of 5,291 men.

	Decrease.	*Increase.*
FRONTIER FORCE.		
Artillery, ...	98	...
Cavalry, ...	141	...
Infantry, ...	1,232	...
Total ...	1,471	...
POLICE.		
Mounted Branch, ...	471	...
Foot, ...	...	987
Levies, Mounted, ...	2,182	...
Ditto Foot ...	2,455	...
" Cureton's" Cavalry,	110	...
" Lind's," ...	...	569
Lahore Light Horse, ...	158	...
Total, ...	5,376	1,556
Grand total, ...	6,847	
Deduct ...	1,556	
	5,291 Actual decrease.	

The Frontier Force held the line of country Trans-Indus, from Kohat to the boundary of Scinde,—about 500 miles,—and also had troops in Peshawur, Eusufzaie and Huzara. Two regiments of Sikh Infantry were still serving in Hindoostan.

MISCELLANEOUS.—*Agricultural and Forests.*—The prices obtained for two tons of flax grown in Goojranwalla ranged at Dundee and Belfast from £35 to £45 per ton. The cost of transport from Lahore to ship-board at Kurrachee, was from £8 to £9 a ton. The price of flax fibre was about 8 rupees per maund, or £22-8 per ton. Kangra hemp was valued at from £30 to 32 a ton. The Imphee was naturalised with success. The Railways caused a demand for timber. Immense forests exist in the Simla territories but are inaccessible. The profit from the Government agency at Pangee in the hill country of the Chumla Rajah was rupees 43,260.

Waste Lands.—The following estimate was made of the land at the disposal of Government in these provinces:—

	Acres.
Forest and waste lands, ...	2,312,260
Culturable, ...	5,196,779
Cultivated, ...	3,596
Unculturable, ...	7,51,014
	8,263,649

Of this area, but a small portion is in the hills, or adapted to European colonization.

The Survey of Cashmere was prosecuted under the direction of Major Montgomerie. The survey of the Sind Sagur Doab and of Derajat was finished.

Dispensaries and Vaccination :—

Patients Treated.

	Remaining at end of 1858.	In-door.			Out-door.			Grand Total.
		Male.	Female.	Total.	Male.	Female.	Total.	
1858,	1,734	7,089	862	7,951	87,890	29,694	1,17,584	1,27,269
1859,	1,957	8,967	1,212	10,179	1,19,350	41,167	1,60,519	1,72,653
Difference,	+223	+1,878	+350	+2,258	+31,460	+11,473	+42,935	+45,384

Of persons vaccinated there were 91,300 or an increase of 28,589 on the previous year, of these 67,534 were successful and 7,983 doubtful.

Tea.—Although the season was too cold and rainy, the outturn of tea in the Holta plantations was considerably larger than last year. The following was the yield:—

Black Teas,	Souchong ... lbs.	1,870
	Pouchong ... „ ...	22,480
Green Teas, ...	... ...	4,942
	Total ...	29,312

The native tea-makers had become accomplished manipulators, and rivalled their Chinese instructors. Some 3500 acres of Tea lands in Kangra were sold by auction on 1st July to European settlers. Upwards of one hundred tons of tea seeds, and two and a half millions of seedling tea plants were distributed from the Government plantations in Kumaon, Gurhwal, and the Punjab, to private parties.

The Lieutenant Governor's Tour through Hissar and Delhi

was made in December at the rate of from 40 to 60 miles a day in a dâk carriage.

THE ADMINISTRATION OF OUDE.

1859-60.

THE year under review was the first in which the administrative scheme of Government, enunciated at annexation, could be uniformly carried out. The whole Province had been restored to peace and tranquillity; the summary settlement of the Land tax had been completed.

JUDICIAL—*Civil Justice.*—The Punjab Code is the basis of the Civil Law. The main features of the law of limitation in force are that suits for immovable property are limited to twelve years; suits founded on registered bonds and debts of record to six years; and all ordinary suits for debt and contracts to three years. Unregistered bonds were not altogether excluded from the benefit of the Courts, until the means of registration could be made both accessible and cheap. The Canoongoe families, who were not otherwise provided for, were appointed notaries in the principal towns and marts, and authorised to register all deeds up to Rs. 500 with fees at ½ per cent. Cazees and respectable tradespeople were also appointed. Fifty-four notaries were appointed and they registered 1,300 deeds. The most important measure of reform in the procedure of the Courts was the abolition of the old practice of deposition writing by native moonshees, and the institution of the plan of *vivâ voce* examination of witnesses by the Judge and the record in his own hand-writing. Though it throws some additional labour on the Judge, the Judicial Commissioner and almost all the other Officers bear unqualified testimony to the advantages and success of the present system. It has greatly raised the character of our Courts, and has given the people immense confidence in the administration of justice. The system was equally enforced in the Criminal Courts. The restriction on the right of appeal, which makes the concurrent opinion of two Courts final, was beneficial. Out of 387 appeals decided, in 257 the orders of the inferior Courts were confirmed, while in 23 only were they reversed. Of the remainder 84 were returned for further investigation, and in 23 the order was modified. A new agency was introduced into the Courts in the shape of a "Clerk of the Court," acquainted with both English and Vernacular. He is charged

with the management of the office and with all the mechanical and routine stages of a case.

The amount of litigation was limited owing to the disinclination of men's minds, after so violent a convulsion, to return at once to their ordinary avocations. There were 3,695 regular suits on the files of the different Courts during the year, and 3,342 were disposed of. Of these 1,794 were decided in favor of the plaintiff, either wholly or in part. The average duration of suits was something more than twenty-eight days, which, on the whole, shows that the District Officers have endeavoured not to allow their other important duties to prejudice civil suitors. The total value of property disposed of by decisions, was Rupees 1,51,72,113 1-5. The greater portion of the civil litigation occurred in Lucknow City, consequently in number upwards of one-half of the suits, and in value about 98 per cent. of the property in litigation, appears in the Lucknow District Return.

Criminal Justice.—Oude was the first province which completely set aside the special tribunals authorised by the Penal Acts. The trials of those convicted of political offences, however, were neither few nor unimportant. Rajah Lonee Singh of Mithoulee died while undergoing his sentence of transportation. The Rajah of Dhourerah resides at Moulmein under strict surveillance. Rajah Jye Lall Singh expiated the crime of the murder of European captives on the gallows, and Mummoo Khan, the Begum's paramour was sentenced to transportation for life. Rajah Rambuksh Singh of Dhoondia Kherah, who attacked the few weak Europeans who escaped from the Cawnpore massacre, suffered death on the scene of his crime. Several minor personages were convicted of similar crimes. There was great difficulty in obtaining evidence against the sepoys of massacre regiments. The penalties exacted for the concealment of arms amounted to Rupees 44,000, and the confiscation of Rupees 1,29,258 of annual jumma. Murder was prevalent; there were 183 cases. In the District Criminal Courts 8,464 cases, involving 17,421 persons, tried, 10,309 persons were convicted or committed to higher Courts, and 6,226 acquitted. The system of using preferentially stripes and fines, in lieu of imprisonment, in the greater number of cases worked well. Of the number of persons convicted during the past year 1,103 were subjected to double or treble punishments, fine and stripes being combined, or one or other, or both, being combined with imprisonment. The number of stripes inflicted never exceeded 100, although Commissioners are empowered to administer 200, while in about 70 per cent. of cases less than

fifty stripes were given. Out of a total of 4,706 persons flogged between 1st January 1859 and 30th March 1860, only eighty-three were flogged twice and sixteen three times; and of the above sixty were flogged twice and nine three times in Lucknow, leaving the small proportion of twenty-three flogged twice and seven three times in all the other Districts, out of a total of 3,186. The Commissioners tried 326 persons and disposed of 278 appeals. In the Judicial Commissioner's Court, besides the thirty-seven persons convicted of murder and maltreatment of Europeans, fifty-six were convicted of murder as principals or accessories, and seventeen of minor offences, making 110 convictions, with eleven acquittals.

Police.—The Police force, as originally constituted was found too large. It was confined to purely civil duties. The force was reduced to one regiment of mounted police of 1,405 sabres, and thirteen regiments of 601 men each, or 7,813 foot police. Formerly it cost 27 lakhs a year; this was diminished by 11 lakhs. The Police statistics were so incorrect as to be untrustworthy. But in repressing the committal of heinous crimes they were most valuable. Their disarming of the population had the following results. There were 720 cannons of sizes; 192,183 fire-arms of sorts, and 579,156 swords delivered up, besides a vast number of miscellaneous weapons. Specimens of the most curious native arms, by desire of Government, were collected and forwarded to England and Melbourne. As to the rural police, the landed proprietors were called on to nominate their own chowkeedars and to provide for their payment in the manner in which it had hitherto been customary to remunerate these village servants. The Police constabulary, organised for the city of Lucknow like the London force, was found to work well. The city was told off into two Deputy Superintendentships, eight Inspectors' stations, and subordinate beats, and there were 270 Constables on duty day and night. The Chief of Police also introduced the system of dividing the whole city into parishes, and allotting these to each post or thannah. Each mohullah or parish selects a representative, who forms the medium of communication with the police.

Jails.—There were only 2 regular jail buildings—at Lucknow and Baraitch, the latter of which was abandoned for its unhealthiness. The number of prisoners under confinement throughout the year was 8,931, and at the end of the year 1,346, of whom 892 were prisoners sentenced to labor, 26 without labor, and 248 under trial. The health of the prisoners was in the main good. The product of convict labor was Rs. 3,598. The cost of maintenance per prison averaged Rs. 23, exclusive of establishments.

REVENUE.—*Land Tax.*—The past season was rather unfavourable but the land-revenue was collected without any difficulty. Out of a total demand of Rupees 1,03,70,108-5-0, there was an outstanding balance of only Rupees 94,280-12-0, or 0·90 per cent., and of this balance Rupees 65,944-12-0 were nominal or in train of liquidation, and 28,336 Rupees or 0·27 per cent. real or irrecoverable. The greater portion of this last item was on account of the failure of the crops in the Lucknow District, in that portion chiefly which borders on the Cawnpore road, and which had not recovered from the ravages committed by the several contending forces during the rebellion. The number of dustuks issued was 9,250; the smallness of the number was owing to the fact that the state dealt with a small number of large landholders. The remissions of revenue amounted to Rupees 44,565 from which it is inferred that the summary settlement was moderate and just.

Excise.—The Deputy Commissioner of Lucknow took the distilleries under his direct management. Spirit 30 degrees below proof sold at a price which gives a rate of excise of Rs. 1-0-6 per gallon and that 25 above proof paid a duty of Rs. 1-11-6. The direct management shewed an increase. The general income of the excise revenue including drugs and opium, was Rs. 6,68,454. The demand was Rs. 7,32,786. The general income of the Excise Revenue, including drugs and opium, during the year, was as follows:—

DIVISION.	Demand.	Collections.	BALANCES.		
			Nominal.	Real.	In train of liquidation.
Lucknow ...	2,90,486 0 0	2,66,244 0 0	5,136 0 0	6,139 0 0	12,967 0 0
Khyrabad ...	1,61,434 0 0	1,42,056 0 0	148 0 0	0 0 0	19,230 0 0
Baraitch ...	1,15,807 4 3	1,05,523 15 5	867 4 10	0 0 0	9,416 0 0
Fyzabad ...	1,65,059 9 10	1,54,630 8 10	0 0 0	0 0 0	10,429 1 0
Total ...	7,32,786 14 1	6,68,454 8 3	6,151 4 10	6,139 0 0	52,042 1 0

Stamps, which the previous year yielded Rs. 44,332, this year

gave Rs. 1,42,030. The manufacture of salt was entirely suppressed, as Oude could raise a revenue from it only by injuring that of the North West Provinces. The revenue realized from the excise system, amounted to Rupees 3,80,913. Sanction was given to establish Opium Agencies for the purchase of the drug at Fyzabad and Seetapore. The price given was raised to Rupees 4 a seer.

EDUCATION.—The Chief Commissioner laboured to impress on talookdars the advantages of Schools and an English Education for their children. Grant-in-Aid schools were established at Seetapore, Fyzabad, Pertabgurh and Gonda. The native gentry subscribed Rs. 7,504 as a donation and Rs. 7,951 annually.

PUBLIC WORKS were almost entirely of a Military character, consisting of the fortifications and demolitions at Lucknow. Pending a decision as to the modification of the original scheme for the Lucknow forts the works of the Residency fort were suspended. Rupees 1,85,507 were spent on fortifications and Rupees 42,892 on demolitions. Out of a total expenditure of 28,50,557 Rupees on "Military Works," the sum of 26,22,158 Rupees has been expended on barrack accommodation. On the 1st May 1860 seventy-four barracks were occupied, and fifty-two others were in various stages of progress at all the stations; in addition to these, 168 subsidiary buildings, including hospitals, guard-rooms, out-offices, &c., &c., had been completed, and 128 more were in progress. Out of a total force of 6,102 men throughout the Province, 5,281 were in barracks on the 1st May, the remainder, 821, being still in huts. The Engineers of the Oude Railway Company made the preliminary surveys for a line from Cawnpore to Lucknow and thence to Fyzabad. 883 miles of new roads were completed, 450 miles of old roads were repaired, 327 miles of road were aligned, and 114 bridges, some of large span, were built. These works were principally executed from the road funds.

POST OFFICE.—The following statement shows the result of the postal arrangements:—

DIVISION.	No. of miles of Dak lines.	No. of Runners.	Cost.	No. of Covers delivered.	No. of Covers undelivered.	Total No. of letters.
Lucknow ...	383	92	4,801	33,519	5,128	38,647
Khyrabad ...	368	80	4,750	51,113	2,990	54,103
Baraitch ...	525	132	7,198	29,805	5,110	34,915
Fyzabad ...	328	76	5,319	22,234	5,083	27,317
Total ...	1,604	380	22,068	136,671	18,311	154,982

FINANCE.—The expenditure was exceptional owing to military requirements and the payment of gratuities to the officers and men of the Police brought under reduction.

Receipts.

Cash Balance on 1st May 1859	38,59,729	1	0
Local Receipts	2,94,72,277	0	3
Supply Bills	29,37,043	9	1
Other Bills	63,00,900	15	3
Remittances	21,69,119	5	2
Total, Rs. ...	4,47,39,069	14	9

Disbursements.

Local, including Military Police	2,28,03,601	13	4
Military, including Public Works Department	1,48,31,305	0	2
Assay Operations	3,73,890	0	0
Supply and other Bills	40,40,017	12	8
Disbursements on account of Government of India, Bengal, &c.	1,29,000	12	6
Cash Balance on 1st May 1860	25,61,254	8	1
Total, Rs. ...	4,47,39,069	14	9

Local coins to the value of Rupees 3,73,890 were withdrawn from circulation. Strenuous efforts were made to adjust the

inefficient balances of the several Treasuries. These balances, which at the commencement of the year amounted to Rupees 51,91,872-7-11, were reduced to Rupees 41,92,590-5-5.

POLITICAL.—The Maharajah Jung Bahadoor, in concert with our troops, surrounded, disarmed and made over to us the remnant of the rebels. Benee Madho alone offered resistance and was slain in a collision that ensued. The only Oude chieftain left at large was the talookdar of Churda. The last embers of the insurrection were finally trodden out before 1st January 1860. The Chief Commissioner estimates the number of rebels that entered Nepaul with the Begum at 25,000. Disarming, though inexorably carried out, was viewed by the people as a wise and necessary act of self-defence. The penalty of partial confiscation of their estates was enforced against some of the Talookdars. The following shews the results, which do not include the arms taken by the military columns in 1858-59.

Arms taken in 1859-60.

Cannons...	187
Fire-arms	54,330
Swords	1,47,127
Spears	11,468
Miscellaneous	61,232

Total taken from commencement of disarming operations in 1858.

Cannons...	714
Fire-arms	1,91,723
Swords	5,78,491
Spears	51,080
Miscellaneous	6,42,137

Statement of Forts destroyed up to 1860.

Number of Forts, ...	1,635
Number already destroyed, ...	1,572
Number under demolition, ...	13
Number retained for public purposes,	50

It was announced by His Excellency the Governor-General in a Durbar attended by 150 of the chief talookdars of Oude, that the ancient talookdaree system of Oude had been revived and perpetuated. At the same time sunnuds or title-deeds were given for the estates to every landholder present. The Chief Commissioner feels assured that the talookdars have been com-

pletely won over by the generous policy pursued towards them, and that they would rejoice at an opportunity of displaying their gratitude to the Government. If their military services were required, the Chief Commissioner is convinced they would be rendered with enthusiasm. The village occupants, convinced at last that our policy was unalterably fixed, cheerfully accepted the subordinate position under the talookdars, a connection in which the great majority had lived happily for generations, and would at annexation have been contented to remain, had we not almost forced independence upon them. By far the most important political measure of the year was the bestowal of Magisterial and Revenue powers on certain great talookdars. Five were so invested in November 1859. A code of elementary rules was drawn up for their guidance. So far the experiment had succeeded. The duties pressed most severely on Maharajah Maun Singh, as his estates are the most extensive and thickly peopled by litigious classes. His proceedings were marked, by intelligence and the strictest sense of justice. The Chief Commissioner expresses his belief that the relations between the native aristocracy and the servants of Government are on a freer and kindlier footing in Oude than in most parts of India.

Tax on Trades and Professions.—The principle on which the scheme was based was to take 3 per cent. on incomes, and having roughly estimated the amount thus due from the rateable inhabitants of each village or town, to leave the distribution to the people themselves. In talookas this work has mainly entrusted to the talookdars who zealously co-operated in it, and prevented an undue share of the burden being thrown on the poorer classes to ease the rich. The amount imposed was 11¼ lakhs. With the exception of the city of Lucknow no difficulty whatever was experienced in the distribution of the assessment or in the collection of the tax. The following shews the amount of collections up to end of June 1860 :—

c

Division.	Demands.	Collections.	Balance.
Lucknow	4,98,834 0 0	3,48,151 5 0	1,50,182 11 0
Baiswara	1,91,325 2 6	1,36,571 5 2	54,753 13 4
Khyrabad	2,42,571 11 0	1,37,072 6 8	1,05,499 4 4
Baraitch	2,06,960 0 0	52,251 6 3	1,54,708 9 9
Total, Rupees ...	11,39,190 13 6	6,74,046 7 1	4,65,144 6 5

The number of taxpayers was 502,468, and the average per head Rs. 2-4.

The boundaries of the former Ghoorkha possessions below the Hills were demarcated and from 1st May restored to Nepaul. The conduct of the chief landed proprietors was, almost without exception, exemplary.

Military.—The strength of the force was :—

4 Battalions Royal Artillery, ...	713	
1 Troop Horse Artillery, ...	109	
2 Companies Foot Artillery, ...	174	
		996
1 Regiment European Cavalry, ...	693	
5 Regiments Irregular Cavalry, ...	2,582	
		3,275
6 Regiments European Infantry, ...	4,969	
4 Regiments Native Infantry, ...	3,039	
		8,008
		12,279

A reduction of one European and one Native regiment is recommended.

Miscellaneous.—The *Population* was not less than six millions. From the effects of Cholera 65,000 persons died. The revenue from *Forests* under the system of allowing any one to cut down trees on the payment of Rs. 4 for each, was Rs. 2,42,079 and the expense of management Rs. 5,489. The total area of culturable waste lands was 507,112 acres. Under the rules which guarantee a rent-free tenure for 12 years if a certain amount be culti-

vated and thereafter revenue be paid for the cultivated portion at the ordinary rates the following Grants were made:—

Division.	Grants.		
	No.	Extent.	To Europeans.
Lucknow	195	44,332	0
Fyzabad	199	65,482	6,196
Khyrabad	40	46,104	0
Baraitch	218	93,209	13,226
Total ...	652	2,49,127	19,422

A Survey of the Province was commenced and 3789 villages demarcated at a cost of Rs. 74,033. The outturn in square miles was 3,630 at an average cost of Rs. 20-6-7 per mile.

Dispensaries.—In 7 districts 5,721 persons were under treatment of whom 5,399 were cured at a cost of Rs. 5,800. Many of these were rebels. Independent of this were the operations of the King's city hospital at Lucknow, supported by an endowment made by Nusseerooddeen Hyder, King of Oude—this consists of two branches, one conducted according to the rules of Native, the other of European science. The English branch was opened in April 1858, the Native branch on the 1st September 1859. During the periods they were in operation, 2,708 persons attended the Native, and 3,333 the European branch; 483 were discharged cured from the former, and 2,909 from the latter establishment. Forty one persons died under the European treatment, only five under the Native. A lunatic and a lock hospital were established in Lucknow.

THE PRODUCE OF THE HIMALAYA HILLS.

Punjab Records.

1860.

A letter from the Financial Commissioner's office to the Punjab Government dated 18th June 1860 contains information regarding the produce of the country about Kangra, Kulu and Simla. Hemp grows almost wild upon these hills, flax is raised in the villages, borax from Thibet is readily procurable and veins of iron are worked at Bir and Gopet Gunga. The hemp of the Himalayas has been shown by Dr. Royle to possess a fibre far stronger than that of Jubbulpore, Gercum, Travancore and St. Petersburgh. In 1856 the Punjab Government made arrangements for the transmission of a small quantity of each of these products to England, and in October 1858 the following cargo was despatched from Kurrachee for England.

56 maunds of Himalaya hemp.
15 maunds of flax.
1 maund of sunn fibre.
6 maunds of borax.
17 maunds of iron.
2 seers of wool.

The cost of shipping the above named goods was Rs. 1317-11.

The bulk of the hemp arrived in a damaged state, but from the few sound samples the trade were able to form a decisive opinion as to its quality. The flax from Indowra was considered the finest specimen ever received from the Punjab and valued at the high price of £55 to £60 a ton, and a portion was actually sold at the rate of £54-10. The hemp was valued at £30 to £32 a ton and was considered an excellent material for cordage. The sunn fibre was not so highly appreciated. There was some doubt among the traders at home whether the so-called flax of Kangra was not only a finer species of Himalayan hemp. Messrs. Kain & Co. of Dundee say, that "if flax, such as Col. Burnet sent home, could be put on board at Kurrachee for £26 a ton it would leave both to importer and exporter a very handsome profit." It is essential to assort flax and hemp, intended for exportation, according to quality, on the spot.

The Borax cost Rs. 4-0-8 per maund or Rs. 113-2-10 a ton in Kangra; it sold in England at £35 per ton. The hemp cost Rs. 2 and Rs. 2-8 or about Rs. 63 a ton; it sold at Dundee for £17-3 a ton. The wool arrived in a damaged state, but its probable value was estimated at 10½*d.* to 13½*d.* The iron was tested in Manchester and at Wednesbury. At the former place, where the best English iron yielded at a pressure of about 56,000 lbs. to the square inch, the Kangra iron required a force of 61,300 lbs. per square inch to break it, in the state in which it was sent, while, after being hammered it sustained a pressure of 71,800 lbs. The specifications recommended to be sent were bars 1 to 2½ inches in diameter, plates ¼ to ¾ of an inch in thickness, angles 2 to 3½ inches and ¼ to ⅝ in thickness, and axles according to specification of purchaser. These would bring £17, £21, £19 and £18 per ton respectively. The Kangra iron cost 5 rupees a maund in the hills. It should be procurable at a lower rate.

PUBLIC INSTRUCTION IN THE PUNJAB.

1859-60.

THE report on the Department of Public Instruction in the Punjab during the year 1859-60 was submitted by Captain Fuller, Director of Public Instruction, on the 2nd June 1860. The operations were carried on under the guidance of Lieutenant E. Paske till January 1860 when Captain Fuller became Director. At the beginning of the year there were three Inspectors, viz., Lieutenants Holroyd and Forbes, and Mr. Browne, formerly in H. M.'s British Army. In June 1859 it was found necessary to remove the last named gentleman from his post, and his duties were taken up by Lieutenant Forbes.

The year under review was not a prosperous or pleasant one for the Department. The curtailment of expenditure by order of the Supreme Government occasioned much difficulty. In 1856-57 the sum to be contributed by Government towards educational expenses in the Punjab was two lakhs. After the rebellion the late Mr. Arnold, the first Director of the Department, submitted a schedule of educational establishments estimated to cost Co.'s Rs. 1,94,484 per annum, which was in-

creased by the Financial and Chief Commissioner to Rs. 2,12,484, and strongly recommended for sanction. In September 1859 the Government curtailed the amount to Rs. 1,60,308. Retrenchment therefore became necessary. Another difficulty encountered by the Department was that the system of education, transplanted from the North West Provinces, was scarcely suited to the Punjab. There was not sufficient co-operation and identity of interests between the Civil and educational officers. In addition to all this the current of public opinion set in very strongly against the Department at the time of Mr. Browne's misconduct, and this exerted a depressing influence on all connected with it, which however the sympathy and support of the Lieutenant Governor tended to counteract.

The chief features of the new system to be inaugurated in May 1860, were these ;—

1*st.*—Abolition of the native supervising Agency.

2*nd.*—Transfer of the executive management of all Vernacular Schools to the District officers.

3*rd.*—Transfer of the cost of Tehsili schools from the general revenues of the State to the one per cent. educational cess fund.

4*th.*—Organization of first-rate Normal schools for training vernacular Teachers.

5*th.*—Institution of efficient Zillah schools in which the English language may be studied, in conjunction with instruction in other subjects, through the medium of the vernacular. To be maintained out of the savings effected by the 1st and 3rd measures above mentioned.

6*th.*—Increase of grants-in-aid to good private schools, to be provided for out of the same savings.

7*th.*—Direct subordination of the Department to Government without the intervention of any other office.

The four Zillah schools contained in 1858-59 783 scholars;

in the year under report the number was only 723. The daily attendance likewise fell from 673 to 571. Tehsili, including inferior Zillah schools, were reduced by two, but the number of scholars increased from 9159 to 10,353; and the daily attendance from 6405 to 7636. One per cent. village schools were reduced from 2029 to 1704; the average daily attendance was 27,264 against 26,377 in 1858-59 when there were 325 more schools. The number of Normal schools increased from 3 to 8 and the number of students under instruction increased from 95 to 325; the average daily attendance also increased from 75 to 292. This circumstance is noticed by the Punjab Government with great satisfaction, and they at the same time recommend the Inspectors to be careful that the *quality* of the teaching imparted at these Normal schools is such as will fit the students for their future duties.

Twelve private institutions receiving Government grants-in-aid had 1377 male and female pupils during 1858-59. This number was reduced to 11 during the year 1859-60 and the number of pupils increased to 1797. The average attendance increased from 1025 to 1424. The study of English was extended; the number learning it having increased from 860 to 1725—more than double. The aggregate of grants-in-aid was increased from Rs. 6,812 to Rs. 8,960.

There were at the close of the year 1869 schools, either directly under Government or connected with it by the receipt of support from the state; with an average daily attendance of 37,187. The receipts from all sources for the maintenance of these schools amounted nearly to 3 lakhs but of this only Rs. 68,256 was derived from Government. The following table will shew how these results are made up:—

Present No.	Description of Schools.	Total Receipt.		From Govt.		For each pupil's Education.									
						Total Cost.				Cost to Govt.					
		1859-60.	1858-59.	1859-60.	1858-59.	1859-60			1858-59.			1859-60.			1858-59.		
5	Zillah, ...	10,085	11,628	7,419	7,108	24	14	...	17	5	...	12	1	...	10	9	...
139	Tehsil, ...	47,450	45,532	45,354	43,051	5	14	...	7	...	...	5	9	...	6	11	...
1704	One per cent. village, ...	1,88,771	1,92,002	*1,46,457	*1,16,691	4	8	4	4	7	...	...	...	...	...	...	...
2	Govt. Normal, ...	6,523	6,812	6,523	6,652	52	3	...	78	2	...	52	3	...	78	2	...
7	One per cent. Normal, ...	9,985	...	*9,339	...	50	1	...	...	...	...	...	...	...	...	...	...
2	Grant-in-aid, higher class, ...	5,552	2,180	1,400	600	11	8	...	28	2	...	3	3	...	7	9	...
10	Ditto lower ditto, ...	23,800	24,142	7,560	7,453	22	1	...	23	11	...	7	10	...	7	3	...
	Total, ...	2,98,166	2,82,296	68,256	64,864												

* These items shew the amount of cost, and not the share of Government, hence excluded from the Total.

There are no Colleges or Collegiate Schools in the Punjab. The highest grade is the Zillah schools. Of these there are five, viz. at Amritsur, Ferózepore, Simla, Goojerat and Delhi, the last of which is maintained out of an endowment granted by the late Nawab Fazl Alli Khan, yielding Rs. 566 a month. Of these the only two teaching up to University standard were those at Delhi and Amritsur. A school was opened at Lahore on the 12th of March 1860 to meet the views of the Sirdars and other chief residents of Lahore who solicited the Governor General for the establishment of a college in the capital. It is divided into an upper and lower department, the upper being devoted exclusively to the instruction of the young nobles and others of the highest rank. The money standard of admission, however acceptable in England, would not answer at Lahore. The right of entrée to the Governor General's Durbar, the local equivalent for a representation at the Court of St. James's, was the only palatable standard that could be substituted. At the opening of this school a great point was gained in the imposition of monthly tuition fees. Previously instruction had been given gratuitously in all the Government and Mission Schools of the Punjab with but one or two exceptions. The minimum entrance donation for the upper Department was fixed at 5 rupees and the monthly fee at 1, 2 and 3 rupees. In the lower Department the entrance fee was fixed at 2 rupees and the monthly fee at 8 annas. The novelty of paying fees in advance was quite startling to the native mind but the custom was soon firmly established. The school reckoned 140 boys on the register at the close of the year of whom 60 were sons of Sirdars and natives of rank. The sum available for its maintenance was Rs. 800 a month. It is a standing rule that every boy shall learn English. An English Normal class was established in which ten stipendiary students were to be received on ten Rs. a month each, who would be bound to serve in a Government school on a salary of not less than Rs. 30 after they had completed a sufficient course of study.

The Report then proceeds to notice the state of education in each circle in detail on the basis of the reports furnished by the Inspectors. Regarding the advisability of levying fees for education Captain Fuller remarks:—"I have a strong conviction myself that a better opportunity than the present could not be found, for a long time to come, for introducing fees in all Government Schools throughout the Punjab. The Vernacular ones are about to pass under the direct management of the District Officers, and with their influence to back the introduction of the measure, the innovation would be accepted as an

integral part of the new system. In the case of Zillah Schools, we can point to the great increase of expenditure which Government is making on them, and the great advantages to be derived from an English education, as warranting the abolition of the custom of giving gratuitous instruction in those Institutions. But in reality the justice of the measure is never disputed, the only doubt is whether its unpopularity will not empty our Schools in a trice. Leaving a certain degree of discretion, however, to the Local Authorities and the Educational Officers immediately concerned, to modify the general rule, I would suggest that a fee of one anna be taken from every pupil in a Village School, whose parents do not subscribe to the one per cent. educational cess, from which those Schools are supported. The same rate should be applicable to Tehsili Schools, and where these are located in populous and thriving towns, the rate should be doubled. Free scholars, who are excused payment on account of positive indigence, should not, save in exceptional cases, be allowed to exceed 10 per cent. of the boys attending. The minimum monthly fee in Zillah Schools should be two annas, which the children of agriculturists should be exempt from paying, in consideration of the pecuniary aid they already give to the Vernacular Schools; but a minimum entrance donation of one rupee should be taken from every pupil hereafter admitted into a Zillah School. It will be feasible to demand higher rates than these in a few of the superior Schools. The advantages of having an entrance donation, I look upon, as great; it gives the Master a stronger hold upon his pupils than any thing else. To encourage the study of English, no higher fees should be taken from boys in the English classes than from those in the Vernacular. Scholarships will only be given to the former; prizes to the most successful boys in either. Proposals to the above effect have been laid before Government, and now await its final decision." These opinions receive the formal approbation of Government.

The preponderance of Mahomedans in the educational department excited some attention. Lieutenant Holroyd says that this is the case in the Punjab as a general rule, but that in some districts of the Umballa circle Hindoos were much more numerous. In this circle there was only one Mahomedan teaching English in the Government Schools.

The Book department was carried on with great success during the year under report. The number of books sold increased

from 29,579 the preceding year to 53,225 worth Rs. 10,548. The establishment of Lithographic and Typographic Presses tended greatly to reduce the cost of printing and to increase the facility of supplying books. The *Sirkaree Akhbar*, a sort of Government Gazette in the vernacular, continued to be published monthly throughout the year. No reliable information regarding indigenous education could be obtained.

Bengal Military Normal School.—This forms the subject of a separate report. This school was established by order of Government in 1855, a portion of the Lawrence Military Asylum at Sanawur being assigned for its temporary location. In September 1855 Lieutenant Dunn having been appointed Superintendent of army schools joined this institution and became head master, carrying on his other duties at the same time. In 1856 Ensign Braide joined as assistant master. In 1856 and 1857, twelve soldier students were admitted of whom six were sent out as Regimental school Masters after completing their course of training; of the rest three were dismissed from misconduct. Subsequent to November 1858 ten more were entered. In 1856 three girls were admitted, who remained till April 1859 when two of them were appointed assistants in the Lawrence Asylum. Four more females were admitted in 1860. In February 1860 the schools were removed from Sanawur to Kussowlee.

From 1st May 1860, a sum of Rs. 1,415 monthly was sanctioned for the male and of Rs. 1,520 for the female department, or Rs. 2,935 in all. Of this Rs. 2,000 was sanctioned only until the new buildings at Sunawar should be ready for occupation.

Female Education.—The following table shews its extent in the Punjab in 1859-60:—

Site of school.	Teachers.				Total cost of School per annum.	Average daily attendance.		No. of girls reading.		Average age of girls.
	Name.	Caste.	Age.	Salary.		Mahomedans.	Total.	Persian.	Urdu.	
Ferozepoor, ...	Sultan Bux, ...	Sheikh, ...	44	7	99	9	9	...	11	7 years.
Ludhianah, ...	Ahmed Shah, ...	Korashee, ...	41	7	100 8 ...	5	5	1	5	11 Do.
Busti Sheikh.										
Doorwash, ...	Golam Mostafa, ...	Sheikh, ...	58	5	63	17	17	...	17	10 Do.
Magianah, ...	Cheeragoodin, ...	Weaver, ...	31	10	121 8 ...	22	22	12	4	8 Do.
Jhung, ...	Abdulsitar, ...	Khokur, ...	51	8	97 8 ...	15	15	20	...	9 Do.
Mozufurgurh, ...	Jamal Khatoon, ...	Joee, ...	40	5	60 8 ...	6	6	7	7	7 Do.
Jalwahum, ...	Bukht Bari, ...	Syad, ...	30	5	60 8 ...	5	5	7	7	6 Do.
Bhootapaia, ...	Jamal Khatoon, ...	Khoja, ...	60	5	60 8 ...	5	5	8	8	8 Do,
Rampoor, ...	Hafiz Hossen, ...	Mallick, ...	50	5	60 8 ...	5	5	5	...	8 Do.
		Averages, ...	45	6 5 4	723 8 ...	89	89	60	59	8 years.

General.—The private donations from natives during 1858-59 for education amounted to Rs. 7,372. The Lieutenant Governor impresses on the Director the great importance he attaches to the establishment of Vernacular Normal Schools, and notices with satisfaction that the daily average attendance rose in the year from 75 to 292, and that the number of students in English increased from 860 to 1725.

EXTERNAL COMMERCE

OF RANGOON AND BASSEIN.

1859-60.

THIS report consists of tabular statements. The total value of goods imported into Rangoon by sea during the year, on which duty was chargeable, was Rs. 28,36,836. The value of exports was Rs. 16,72,969. The value of free imports was Rs. 16,08,841, of which Rs. 596,520 represents silver treasure; the value of free exports was Rs. 4,22,959, of which 43,075 represents silver treasure. The number of square rigged vessels that arrived in the port was 142, with a tonnage of 65,976 tons, and of native craft 9, with a tonnage of 1025 tons. The number of square rigged vessels that departed was 154, with a tonnage of 66,735, and of native craft 16, with a tonnage of 1728.

The value of goods imported into Bassein was Rs. 18,425, the value of free imports was Rs. 2,09,688, the value of exports Rs. 2,70,900, and of free exports Rs. 67,719. The number of arrivals was 15 square rigged vessels with a tonnage of 7783 and 21 native craft with a tonnage of 1969; the departures were 20 square rigged vessels with a tonnage of 10,502 and 31 native craft with a tonnage of 2485.

THE HILLS OF SIND.

Bombay Records, No. LVIII. New Series.

IN March 1859 Sir Bartle Frere addressed the Collectors of Kurrachee and Shikarpore requesting them to ascertain whether any spots could be found in the hills of Western Sind suitable

for the residence of European officers during the hot weather. Roheyl, a point in the Heerthur hills, North West of Sehwan, was suggested. Subsequently Dr. Lalor, of the 2nd Sind Irregular Horse, called attention to a place further north in the same range of Hills, which forms the subject of the present report.

Dr. Lalor visited these hills in June and July 1860 and saw as much as his limited stay would permit. The spot to which his observations were directed is known as the "Dunna Towers." These Towers, originally built by the Ameers, are situated on a ridge of the great Halla range about fifty miles to the south-west of Mehur and in that Deputy Collectorate.

The ascent from the surrounding country is steep. Behind the hills rise the lofty ranges which form the barrier between Sind and Beloochistan. The routes by which the Towers are approached are difficult and fatiguing. The hills are in every direction intersected by innumerable watercourses, and evince powerful and repeated water action. The ascent from these to the middle ridge, on which the Towers are built, is very abrupt and laborious, though apparently practicable and safe for hill ponies. It is altogether about five miles. The first two are over a solid rock of close-grained sand and limestone, about fifteen hundred feet in elevation, thence through the bed of a nullah, flanked on either side by masses of loose sandstone and marl, containing nummulites in large quantity. The remaining three miles to the "Towers" are very steep, and lead up the middle ridge, the most marked peculiarity of which is, that it dips at an angle of about 45° westward, or in a contrary direction to the lower one just described, and to the upper or "Khara Tucka" immediately beyond. It is, as approximately ascertained, from the boiling point of water, about 4,500 feet above the level of the sea, and mainly composed of nummulitic limestone with the accompanying nummulites and testaceae, occasionally varied, by bits of quartz, imbedded nodules of carbonate of lime, and pyrites.

Immediately beyond, and striking more directly N. and S., is the "Khara Tucka," six thousand feet high, at least. This dips eastward at an angle of about 30°, shows considerable traces of water action along its side; at either flank is a huge cliff of fully five thousand feet. These appear to have been either corroded away by water action, or else thrown off in a convulsion of nature with some violence, altering the strike to N. E. and S. W. They appear very imposing, especially at early morning, but access to them is difficult, particularly that to the S. W.

This overhangs Herar,* a pretty little valley, about three

miles S. W. of the Towers, containing an abundant supply of water. It is a place of some importance in the hills, was once intended by the Ameers of Hydrabad as a secure retreat, and still shows the half-finished walls and gateways of a fort. At a comparatively early era of creation, this valley must have been inhabited, and curious remains of a by-gone age are seen in the "Kaffir Kotes"—regular and evidently artificial ranges like river terraces. They were probably intended as sites for huts and tents, but it would be impossible to ascertain how they were formed. The popular belief is, that those huge boulders were lifted into position by the giant race then inhabiting the earth, or they may have been arrested in their descent from the higher ridges by some artificial contrivance. But, whatever may be theory of their formation, they are strange and imperishable though indefinite memorials of an age and race long since passed away.

Soil.—The soil is a yellowish-red marl, apparently very rich, and, in the season, is under cultivation.

Products.—Jowaree is grown to a small extent. Water is procurable from a rivulet at Herar, but the road is difficult. The stream contains many kinds of fish, similar to roach and perch, also crabs, cray-fish and myriads of minute articulate animals. The crags are covered with variegated flowers, and ferns. Good drinking water can be had at Ut-ke-Pere about four miles from the Towers. Rain water can be easily collected in tanks near the Towers. The general aspect of the hills is barren and wild, but thousands of sheep and goats find herbiage amongst the stunted shrubs and trees. The latter are usually very small. The chief varieties are the Peloo and the Kusseer. Capers and wild almonds are found. The Khow, *Olirum Montanum,* and the Loheroo, *Tectona Grandiflora,* the two most remarkable woods in Sind, are found here. The most universally useful plant is the "Pees," a species of fan palm. From the leaves of this are manufactured ropes, mats for the walls and roofs of huts and sandals, while the decayed parenchymatous tissue affords excellent tinder.

Animals.—The only wild animal found is the "Gorput," a kind of badger. The birds differ little from those of the plains, in addition to which there is a peculiar variety of partridge. Few reptiles are found. A lizard of the genus Ignana of a shining black appearance is occasionally seen. The only venomous animal is a variety of the yellow scorpion. The sting though painful is not very dangerous. There appear to be no endemic diseases and the people say they never suffer from fever.

Climate.—This is the most important point in the inquiry.

The particulars as given by Dr. Lalor, are as follows:— "With regard to temperature—the first and great element of climate,—the mean of sixteen observations, taken at 6 A. M. and 2 P. M. respectively, during the last fifteen days of June, was 84° 20′; the greatest maximum 97°, and minimum 76°. The mean daily variation during the same time was 5° 6″; the greatest maximum 14°, and minimum 1° 30″. Solar radiation was powerful, but tempered by cool breezes, setting chiefly from the N. W. during the first week, but afterwards from the E. and N. E. These latter days were particularly cool and moist, accompanied by light clouds and rain. The thermometer never rose above 78°, and the daily variation was a minimum. The nights were invariably pleasant—a few positively cold,—and in none could warm covering be conveniently dispensed with. High winds—cold, but otherwise of an exceedingly disagreeable nature—prevailed at the lunations in June. The small particles of sand and dust were swept along with a violence such as rendered walking, or sitting in exposed situations, very unpleasant. Shortly after the E. and N. E. breezes spring up, the valley below becomes covered with fog, appearing at first in small patches, but gradually spreading, and finally rising above the level of the Towers, seems to settle along the top and sides of the Khara range. During the nights, a good fall of dew, and in the day a most grateful alternation of cloud and sunshine. A slight shower of rain on the 30th, and again the atmosphere became dry. During the month of July the atmosphere was much more uniform, the temperature lower, and the daily variation slight. There were none of those high winds so disagreeable in June. The first experiments on humidity show a powerful evaporation and unduly dry state of the air, the mean depression amounting to 28°. Owing to want of instruments, the observations were then suspended until the end of the month, when a very considerable change had taken place, and the mean depression was only a few degrees. In July, there was a marked, but gradual and never violent, transition from dryness to moisture, which gave to the month its decidedly agreeable character. The observations on solar radiation show a different result from what might have been expected, and opposed to the theory that "the calorific effects of the sun increase as we ascend." The greater clearness of the atmosphere and general absence of clouds seem to favour the theory. E. and N. E. winds were almost the only ones during the months of June and July. This great uniformity results, no doubt, from the vapour rising out of the plains, and carried against the sides of the mountain, causing some condensation—a vacuum,—and consequent rush of air in those

directions. Once a southerly wind swept over the valley of Herar, and approached in effects the hot winds of the plains. Rain came on towards the end of June. The vapour upraised from the plains formed for days, with low and continued mutterings of thunder, along the Khara, and at last fell in all the bright tints of a summer's evening shower. During the month of July, those grateful and refreshing showers were of constant occurrence. The amount of heat evolved in condensation was curiously demonstrated in the occurrence of a hot wind immediately following the subsidence of the rain. The thermometer suddenly rose from 70° to 84", and as quickly fell again."

The difference in temperature between these hills and the plains is great but the advantages derived from the elasticity and buoyancy of the atmosphere are even greater. The immediate benefit conferred by the present cool retreat of the hills in enabling a certain number of officers to carry on their official work without that detriment to bodily and mental vigour which drives so many to seek a change before they have been more than a few years in Upper Sind, is apparent. Better accommodation at the Towers would make it still more so.

CUTCHEE IN THE LEIA DISTRICT.

Punjab Records.

1860.

Mr. Cowan, Extra Assistant in charge of Cutchee, drew up a memorandum descriptive of that ilaqua in January 1860. Cutchee is a sub-division of the Leia district. It is 76 miles long and 38 miles broad. On the north and east it is bounded by the salt range, on the west by the Indus and on the south and east by Shahpoor and Leia. It consists of two natural divisions, the Thull, or desert track beyond the reach of the Indus and the Cutchee or low land which is yearly inundated by the river. The former is arid and very sparsely inhabited. The village of Wan Bucheran contains 150 square miles. Towards the north the country improves and at the foot of the salt hills the soil is highly productive, particularly after copious rain. A canal to branch from the Indus near Maree has been spoken of but its feasibility is doubtful. There is reason to believe that the land near the base of the hills *is lower* than that further south. A hill stream which issues from the salt range, about

16 miles to the south of Maree, follows a northerly course, for some miles after it enters the plain, and, whereas at Maree there is no perceptible bank to the river, at Meawallee and further south the bank is 30 feet high. Near the village of Moosa Kheyl a small stream issues from the hills, having a body of water equal to about 50 wells. Formerly, owing to village dissensions, the water was lost in a wide sandy nullah, now by damming the stream up at its debouchure and conveying the water by a direct cut to the village a tank has been filled and 1,000 kunals of land brought under cultivation.

The Cutchee, or low land, is dependent on the annual inundation for irrigation. The river rises early in May and by the middle of June the various nullahs bring down a rich deposit of "mutt" which fertilizes the country. By October the river retires and during the following two months nothing is to be seen but an unhealthy swamp. After another month or two new *choppurs* are erected and the villages re-assume their usual appearance. To the south of village of Dullu Uzmut commences the Cutchee Forest which extends a distance of twelve miles. The trees are scattered and detached and of little value as timber. The forest is diminishing every year and measures should be taken for preserving it. Mr. Cowan proposes to mark off a portion where the timber is of least value and to permit the people to cut plough handles from it on payment of a small fee. The amount thus realised would be sufficient to maintain a small establishment to look after the young trees. The preserved portion would be always increasing in value.

Minerals.—Gold is found in the bed of the Indus from Maree to Pukkee, but digging is not remunerative. Iron ore exists in small quantities in the neighbourhood of Nimmul. Lignite exists in many parts of the salt range, and at Kalabagh there is a vein of inferior coal which can be delivered at Kalabagh at five maunds for the Rupee. Any quantity of salt may be had at Maree; the outturn at the mine is about 70,000 maunds per annum. Alum is manufactured to a small extent at Kalabagh and sells at Rs. 6 to Rs. 7-8 per maund. Sulphur is found near Jabba. Petroleum oozes from underneath the sulphur beds at Jabba; a spring is said also to exist near Esa Kheyl. Flint, of a superior quality and in any quantity, is found between Moosa Kheyl and Nimmul. Rock crystals are found near Maree and at Kalabagh. Talc is found both at Maree and Moosa Kheyl but of inferior quality.

Revenue.—The annual revenue of Cutchee is Rs. 1,32,000 and is easily collected. The land tax is about 3½ annas per kunal. Two kinds of assessment prevail; in some villages the

land under cultivation at the time of settlement alone pays revenue—*bunjur* land, since brought under cultivation, paying nothing. In other villages both cultivated and uncultivated, but culturable, lands are assessed—the latter at half rates.

Cultivation.—Only the common cereals are raised in Cutchee. Cotton is sown after copious rains in the land skirting the hills, and, in a good season, is a most profitable crop—the cultivator realising from Rs. 4 to Rs. 6 per kunal.

Architectural Remains.—The remains of substantial works scattered over the country prove it to have been once more thickly populated than it now is. Nearly mid-way between Meawalee and Koondian on the high bank of the Indus is the site of the once flourishing city of Mouzum Nuggur. The people have a tradition that this city once contained one hundred thousand dyers of cloth, and that wood was so scarce that a stick could not be found to drive a bullock with. At Wan Bucheran is a massive well or "Wan" which is descended into by a broad flight of steps; the entrance is ornamented with two tall dome-shaped columns of solid masonry, which have partially fallen into decay. Between Moosa Kheyl and Nimmul are the ruins of a fortified place, evidently of Buddhist origin, and resembling the Kaffir Kotes, Trans-Indus. Along the base of the salt range are numerous sarcophagi of hewn stones, the resting places of the Gukkur tribe who have now entirely disappeared from Cutchee.

Putwarees.—The Putwarees are below the average of the same class of men in other districts of the Punjab. Two thirds of them keep their accounts in the Persian character, the remainder in Hindee. They now register marriages in addition to their other duties.

Charitable Dispensary.—A dispensary was opened at Meawalee in October 1858, and is popular with the people. In June 1859 the dissection of a corpse caused a temporary ebullition of feeling. It was the first operation of the kind in the ilaqua.

Vaccination.—Small-pox raged with great violence during 1859 and the vaccinations were generally unsuccessful.

Schools.—There is but one Government school. The attendance is very fair, being chiefly composed of Hindoos.

Roads.—In 1858 the only road was that from Meawalee to Shahpore. During 1859, ninety-four miles of road were constructed, of which 28 miles were made for only Rs. 28 a mile.

Manufactures.—Noorpoor in the Thull is the only town of manufacturing importance. There blankets are made, and wool is exported to some extent. Saltpetre is manufactured in large quantities.

Cattle.—Beasts of pasture are numerous. Horned cattle are small and inferior. Good bulls are much wanted. Sheep and goats of a good description are numerous. The sheep give two crops of wool a year and fatten easily. Buffaloes are numerous in the low lands. Good mares are to be had but horses are rare.

Character of the People.—The people are divided into Puthans and Jats, of whom the former inhabit the northern part of the district. They possess few good qualities, but the Jats are a quiet, well behaved race. In former days the common crime of Cutchee was affray, but since 1859 it has almost ceased. Cattle theft is not of common occurrence, and the abduction of unmarried females, which was formerly a common offence, has nearly ceased, owing to the introduction of a sound system of marriage registry.

SETTLEMENT OF THE GOOJRANWALA DISTRICT.

1858.

THE report on the revised settlement of the Goojranwala district in the Lahore division is drawn up by Mr. J. H. Morris and is dated 31st October 1856. During 1857 political troubles prevented matters of this kind from being attended to, and during 1858 a revision of the settlement became necessary, and hence the delay in submitting the report. The work was commenced by Mr. Greathead in 1850, carried on by Mr. Temple and completed by Mr. Morris.

During Mr. Temple's incumbency the work done was as follows. The demarcation of boundaries was completed; the measurement of three out of five Pergunnahs, and the assessment of the same finished; the rent-free tenures of two Pergunnahs partially investigated, and much miscellaneous "Hukeeat" work done. On Mr. Morris' assuming charge there still remained the measurement and assessment of nearly two whole Pergunnahs, together with the "Bar" villages; the investigation and report of nearly all the rent-free cases; the completion of the entire record of rights for the whole portion, together with much judicial and miscellaneous work.

Goojranwala is situated in the centre of the Rechna Doab,

between the river Ravee on the East and the Chenab on the West. On the North lies the district of Sealkote, and on the South the districts of Jhung and Gogairah with the "Bar' between them. Its extreme length is about 100 miles and breadth 60 miles; its superficial area is 4254 square miles. It is traversed by only one stream, the Deg, a hill stream of a fertilizing nature. The principal towns are *Shahdurah*, close to Lahore, on the banks of the Ravee; *Goojranwalah* on the Grand Trunk Road; *Wuzeerabad* on the banks of the Chenab; *Eminabad* on the Umritsur road; *Ramnuggur* and *Pindee Bhutteean* both within two or three miles of the Chenab, on the Mooltan Road; *Hafizabad* and *Shekoodoorah* on the borders of the "Bar;" and *Shurrukpoor*, close to the Ravee. All these are good and favorable markets for the disposal of surplus produce. The chief trade of the district is in ghee, wool and iron. The last named is manufactured at Nizamabad. During the Imperial and Seikh times warlike weapons were made here, but the trade subsequently deteriorated, and has now almost ceased. The water traffic on the Chenab, though insignificant, is increasing. The population of the district is estimated at 600,000, while the average per square mile is rather less than 150. The district may be considered as divided into two parts, the "Des," or cultivated portion and the "Bar," or grazing tract. The former comprises the Pergunnahs of Goojranwalah, Ramnuggur and Shahdurah, with a portion of the Hafizabad and Shekoopoorah Pergunnahs, in short all the land lying to the North, with fringes of cultivation from 5 to 10 miles in length on the banks of the rivers to the South. The latter contains that large uncultivated tract which runs right athwart the Doab and down its centre.

The Bar is a flat, level tract, covered with rich grass, and thickly dotted over with bush jungle. This tract is said to have been densely populated and highly cultivated some centuries ago, when the saying was that "there was a well to every twelve acres of land." The prevailing caste is Jât, sub-divided into numberless clans or "Goaths." Rajpoots are not very numerous. The land of this Doab may be divided into two grand classes "Netar" and "Ootar;" or low and high lands. These again consist of various sub-divisions. The soil is divided according to its quality and capacities into Goera, Rohee, Doshabee, Mera, Tibbah, Kullur, Kullurattee, Chumb, and Bela. The cultivation is inferior to that of Sealkote and Goojrat.

Irrigation is of two kinds, natural and artificial. The former comprises "sylabee," or lands submerged and kept moist by the rise of the river, and "Abee," or low land near a stream or pond, subject to an overflow from the same. The latter consists of "Chahee," or such as are watered from wells, and "Abee" or land watered by a Jalar from stream or pond. The "sylabee," land is by no means of first rate quality, and will not bear comparison with that higher up in the Doab, and still less with that of the Jullundar Doab. Generally speaking the alluvial deposit from the Ravee is richer than that from the Chenab, which is a good deal injured by sand: but the action of the former river being much greater than that of the latter, the Ravee estates suffer much more from abrasion than those of the Chenab.

The "Chahee" land and the whole subject of artificial irrigation from wells form an important element in the agriculture of this Doab. The well used for irrigation is the Persian wheel: it is to be found in all soils from the Khadir to the "Bar." The cost of sinking a well ranges from 50 to 300 Rupees, and is dependent greatly on the depth of the water from the surface. A first rate (Kamil) well has forty acres attached to it, and should be worked by eight pair of bullocks: in general however there are not more than four pair, except in the "Bar," where every good well has at least six pair. The condition of a well is almost universally estimated by the number of yokes attached to it, and no well with less than four yokes is considered worth much. The arrangements for watering are dependent on the number of shares, each share having a stated period allotted to it, called "varee." If there are only two or three shares in a well, then the "varee" will extend to eight watches, 24 hours: if four shares and upwards, the period allotted to the "varee" is four watches or 12 hours. The "varee" of 12 hours is by far the most common, especially in the Churkuree Mehal, adjoining Bar, and "Bar" estates. In these there are generally 4 "varees," in the Bangur often 6, whilst in the Khadir we find 8 and 10 "varees." In the Khadir one yoke of bullocks will work for two watches, consequently 2 yokes will work a "varee;" whilst in the "Bar" one yoke cannot work more than one watch, so that four yokes are required to work a "varee" of four watches. The amount of land irrigated by a well depends on the nature of the soil, depth of water from the surface, and condition of the well, but most of all on the number of yokes it is worked by. A "Kamil" well with 8 yokes, worked day and night, will irrigate 40 acres of

land. This however cannot be reckoned on with certainty. 30 acres is the average in ordinary years; whilst in years of scarcity or drought not more than 20 or 25 acres can be calculated on. In "Bar" land, one yoke is equal to irrigating 5 acres in the year, whilst in the Bangur and Khadir it reaches 7 or 8 acres. The soils of the Khadir and Bangur tracts however absorb more water than that of the "Bar." Buffaloes are mostly used in the "Bar" and "Nukka." They are also coming into use in the Bangur, but in the Khadir inferior bullocks can do the work. Buffaloes are superior in strength to bullocks, but cannot work in the sun so well. The expenses of irrigation are least in the Khadir, and greatest in the "Bar;" in the latter, the water is often so far from the surface that it is by no means uncommon to see two yokes of buffaloes working together at one well.

With the exception of the "Bar" and "Nukka" villages, the cattle chiefly employed in agriculture are bullocks. They are preferred to buffaloes because they live much longer, and can bear up better against the heat and fatigue. Buffaloes are stronger; but then they can only work at night during the hot months of Jhet, Har, and Sawun. Formerly this District was chiefly supplied with bullocks by Syuds from the Derajat, and Leia and Shahpoor Districts, who came up twice a year in Jhet and Sawun, and sold large numbers to the Zemindars. Either ready money was given, or short credit on the security of respectable Chowdrees, who gave written bonds for the amount due. The prices ranged from 15 to 30 Rupees. Since the supply of bullocks failed, that is since 1909 and 1910 Sumbut, when the Syuds gave up coming, buffaloes have been imported, and are coming very generally into use. They are sold at a much lower rate than the bullocks. A few bullocks are still imported from the Shahpoor "Bar," but the cattle of the "Bar" of this District are almost all bought up by the Lobanahs for the carrying trade. The demarcation of village boundaries, according to the system followed by Mr. Temple was this:—the Zemindars put up their own boundaries and gave in two papers one a "Razeenamah," stating they were satisfied with the boundary, and the other a "Moochulka," binding themselves down to abide by that which had been fixed. It was the duty of the Putwaree to see that the pillars were made and rightly put up, as well as to draw out the Thakbust Maps. All disputes were settled by the Judicial Officer on the spot. The new system of fixing village boundaries by the use of the compass and plane table was not in vogue when the Hudbust of this District was effected. In addition to the regu-

lar village boundaries, pillars were fixed in all the river villages to shew exactly the flood and alluvial lines, in accordance with the instructions issued by the Financial Commissioner. It is hoped that they will be carefully kept up and renewed each year when necessary. The demarcation of boundaries for the Bar villages was also conducted on Mr. Temple's plan. The measurement was effected entirely through the agency of Putwarees, and with careful supervision, it was found for all practical purposes as accurate as need be.

Under the Sikhs this district was ruled by various Kardars. Their revenue system was that of appraisement of the crop or "Kunkoot." The evil consequences attendant on this system are worthy of notice, if only to show what the effect has been on our present system of revenue collections. First, it made the people improvident: they knew that the more they worked, and the larger their returns, so in proportion would the Government demand be enhanced; whilst the more idle they were, the less would they have to pay to Government. Thus was a premium offered for idleness. Secondly, it was directly to the advantage of the Kardar that the cultivation should increase: it therefore became his interest to give over the land to those who would till it best, who were generally mere cultivators. Thus the rights of proprietors were disregarded, and the value of property consequently decreased. In addition to the regular revenue, many extra dues were exacted by the Kardars under the denomination of "Abwab." The following are worthy of notice:—

"Nazur," 1 Rupee per harvest, from each well.
"Farash Khana," 1 Rupee per village.
"Tope Khana," from 1 to 2 Rupees per village.
"Hoolee," from 1 to 2 Rupees per village.

The principal artizans, as blacksmiths, weavers, tanners &c., were taxed at the rate of 1 Rupee per house. The inferior workmen (the Kumeens) had to pay 8 annas per house. Traders were also taxed at from 1 to 2 Rupees each. In the Shekooporah Ilaqua, where collections were chiefly in kind, 1 Rupee per "manee" of grain was taken for the difference in prices. Eight annas per "manee" was also exacted on account of the cost of carriage to Lahore, unless the cultivator chose to transport the grain there himself. Dues were also enacted for the right of pasturage in the "Belas" on the river banks: the rates varied considerably in different localities, and at different seasons of the year.

The summary settlement made by Mr. Cocks in 1847 was calculated on the average receipts of the five previous years after a reduction of 10 per cent. It proved to be unequal and in many cases severe, chiefly on account of the fall in prices, the scarcity of money and the deplorable effects of the two droughts of 1849 and 1853. During the whole period of the summary settlement there was an average balance of 7½ per cent. which in the two years of drought increased to 10 and 15 per cent.

The considerations that rendered a light assessment advisable were:—the general inferiority of the soil; great depth of water from the surface; the absence of development of natural resources; the nomad character of the people; their idleness and improvidence; their thievish propensities and aversion to money payments; the absence of proprietary rights, and low value of landed property; the scantiness of the population; and absence of cultivators. The total reduction on the former Khalsa Jumma alone amounted to nearly 17 per cent. The particulars of assessment and reduction both Khalsa and Jageer are given in the following table:—

TEHSEEL.	Khalsa.				Jageer.				Total of Khalsa and Jageer.			
	Former Juma.	Present Juma.	Increase.	Decrease.	Former Juma.	Present Juma.	Increase.	Decrease.	Former Juma.	Present Juma.	Increase.	Decrease.
Goojranwala, ...	2,24,790	1,83,024	...	41,766	66,788	49,757	...	17,031	2,91,578	2,32,781	...	58,797
Wuzeerabad, ...	1,64,270	1,37,117	...	27,153	37,297	30,528	...	6,769	2,01,567	1,67,645	...	33,922
Hafzabad, ...	1,59,744	1,28,737	...	31,007	61,661	14,199	...	2,462	1,76,405	1,42,936	...	33,469
Total of Zillah Goojranwala.	5,48,804	4,48,878	...	99,926	1,20,746	94,484	...	26,262	6,69,550	5,43,362	...	1,26,188
Shurrukpoor, ...	1,01,581	81,683	...	19,898	52,405	44,589	...	7,816	1,53,986	1,26,272	...	27,714
Lahore villages, ...	35,334	34,840	...	494	17,850	17,850	...	...	53,184	52,690	...	494
Chooneean villages, ...	21,760	22,370	610	...	1,260	1,235	...	25	23,020	23,605	585	.....
Grand Total, ...	7,07,479	5,87,771	...	1,19,708	1,82,261	1,58,158	...	34,103	8,99,740	7,46,029	...	1,53,811

The aggregate of the total new Jumma, including Khalsa Jagheer and Maafee, is about eight lakhs. In the Goojranwala district the acre rate of the new Jumma on cultivation is Rs. 1-2-0, with the percentage of irrigation at 73; the rate on the malgoozaree area is also only 11 annas, proving that the assessment is very moderate, if not absolutely light. Over the whole tract the rate on cultivation varies from Rs. 6-8 to 14 annas, while the corresponding variation in the percentage of irrigation, is from 85 to 68.

The number of villages farmed was 20, while in 16 other estates transfers of the proprietary rights were effected. The land held rent-free and therefore exempt from payment of revenue consisted of three classes Jagheers, Maafees and Inams. The investigation of the first was not conducted in the department. The investigation of the second proved a very arduous and laborious task. The total number of cases decided was 6720. The mode of dealing with Inams is thus described by Mr. Morris:—"The principle I have laid down in dealing with these Inams is this, that having been originally granted as rewards for industry, for the improvement of the land and extension of the cultivation, they shall be only upheld and continued on the same grounds. Thus to give an example. A village under Sawun Mull with 5 working wells enjoyed one-third Inams, that is, at his fixed rate of 60 Rs. per well, the revenue of the *whole* village would be 300 Rs., of which 200 Rs., or two-thirds, would be the Khalsa or Government portion, and 100 Rs., or one-third, the Inam. At the Summary Settlement the former Jumma of 300 Rs. was upheld, i. e., the Khalsa portion was 200 Rs., and the Inam 100 Rs. On coming to make my assessment, and on looking over the village, I find it in good order, all the wells working, and the revenue paid regularly. I therefore consider the proprietors entitled to the whole of their Inam, and fix the proposed Jumma at 200 Rs., supposing my rate to be 60 Rs. per well. But if on the other hand I find the proprietors have been idle, that they have allowed the estate to get into bad order, and one of the wells to fall in, then I proceed in this way: I first calculate what the estate would have been worth had all the wells been working; from the amount thus gained I deduct the Inams claimed, and the remainder will show the proposed Jumma of the village; whilst the difference between the remainder and the amount obtained by applying my rates to the actual number of working wells, will give the real Inam granted. Thus to take the above example, one well having fallen in, 4 working wells remain: at 60 Rs. per well, the village is worth 240 Rs.; but originally there

were 5 wells, which give 300 Rs.; deduct one-third from this and we get 200 remaining, which will be the proposed Jumma; whilst the difference between this and 240 Rs., or 40 Rs., will be the amount of Inam granted. Again, supposing that 2 out of the five wells had fallen in, still the proposed Jumma will be 200 Rs., whilst in this case there will be no Inam at all. I anticipate that this will work well, for hereby a direct premium is offered for industry and capital: for in the last instance the proprietors have only to rebuild their two wells, and they will at once begin to re-enjoy their former Inam." Half the villages distribute their revenue on wells and hence the importance of ascertaining the names of wells, the names of proprietors with details of shares, the names and number of cultivators, the amount of land in detail and the amount of Jumma. Where statements embracing these particulars are carefully prepared the work of settlement is much facilitated. Out of 1604 Mouzahs, after subtracting 80 Government Mehals, 291 have distributed the Jumma on shares, 876 on wells, 17 on yokes and 340 on the land. The system of self-taxation was found to work smoothly. Since the settlement was made it was found necessary to re-arrange the circles of the putwarees. Mr. Morris recommends the adoption of measures to ascertain from time to time the actual state of wells, and the payment of Tuccavee advances where they are required.

The cost of the settlement was 32 per cent. on the annual Jumma of eight lakhs. The true test of the cost is the rate at which it falls on the cultivated area. The cultivated area of Goojranwala is 6,49,300 acres, while the cost incurred was Rs. 2,56,916, giving 40 Rs. for every 100 acres, or 6 annas and five pie per acre which is a fair rate. The actual amount of Khalsa Jumma for which sanction was requested in Mr. Morris' report was Rs. 4,48,878 and the Jagheer Rs. 94,484. The Shuruckpore and Shahedera Pergunnahs referred to in this report had already been treated of in Mr. Temple's report for the Lahore division.

SETTLEMENT OF THE LAHORE DISTRICT.

1858.

THE revised settlement of this district of the Lahore division was commenced in 1852 and completed in August 1858. The

officers who conducted it were Messrs. R. H. Davies and R. E. Egerton, assisted at various times by Messrs. Vans Agnew, Thomson and Blyth, and Agha Kulbabid Ali for the Baree Doab portion, and Messrs. Temple and Morris for the Rechna portion of the district.

The District Described.—The Lahore district is bounded on the North West by the Goojranwala District, on the North East by the Umritsur district, on the South East by the Sutlej, and on the South West by the Gogaira District. It is intersected by the Ravee, which separates one-third of the District lying in the Rechna Doab, from the other two-thirds lying in the Baree Doab. The Degh Nullah runs through the Shurrukpore pergunnah; the supply of water in it varies very much; in the rainy season it over-flows the country for miles on either side, and in the hot weather it is nearly dry. There are no other streams or rivers in the District. The high land of the Baree Doab is intersected by drainage lines called in the vernacular "Rohee"; these are merely depressions in the surface of the country, in which the rain water collects, and lies longer than in other places, but does not, except in very violent rains, ever become a running stream, and then only for a few hours.

In the low land which lies between the high bank of the Manjah and the Sutlej, the old bed of the Beeas is situated. This follows closely the high bank of the Manjah, and runs immediately beneath it through the pergunnah of Kussoor and Chooneean. This old Channel is also traceable in the Mooltan District, and there is no doubt that the Sutlej and Beeas flowed separately formerly either to the Indus, or to within a short distance of it. The villagers in the Chooneean District state that the Beeas finally ceased to flow in its old bed in Sumbut 1807, corresponding with A. D. 1750, and that the cessation was gradual and not sudden. This story is borne out by the appearance of the bed, which has evidently been subjected to the action of a very gentle stream. They attribute the stoppage to the influence of a Sikh Gooroo named Hurjee Mehrban, who cursed the river for throwing down his Dera or sacred abode. The Dera is still in existence on the banks of the old bed of the Beeas near Chooneean, though it is now in a ruined condition. The descendant of the Gooroo lives beyond the Sutlej, at a place called Gooroo Hursuhai, and still has a Jagheer in the Chooneean District. It is probable that the date given for the stoppage of the flow of the Beeas is correct. The district is in general poorly cultivated and thinly inhabited. On the banks of the Sutlej and Ravee and in the neighbourhood of the capital

the cultivation is better than in other parts. The principal towns are Kussoor, Puttee, Chooneean, Khem Kurrun, Shurrukpore and Shahdera. Carts are chiefly used as means of transport for produce, and since the annexation they have increased in number till they have now reached 4,000.

Government Rukhs.—There are 108 Government Rukhs or grass preserves occupying an area of 2,36,507 acres. Of these 69 are old Rukhs formed under the Sikh rule and 39 were formed in the Chooneean Pergunnah when the boundaries of the villages in that Pergunnah were fixed. In reviewing Mr. Egerton's report Mr. Temple says of these Rukhs:—

"The Sikh Government used to mark off and preserve large plots of ground in the jungle for hunting, for use of the cavalry, for supplying the court, camp, and capital, with grass and firewood, and maintaining game for the chase. For these a separate Superintendent was appointed. The last Superintendent was a Sikh gentleman now residing in the District. These fell into the hands of the British Government; and one of the first things done after annexation was to mark their boundaries. Then the regular settlement came on. Additions were made to the numbers of the Rukhs by the marking off, as Government land, tracts of jungle, of which the ownership had belonged to no one. There are now 108 Rukhs, with the enormous area of 2,36,705 acres, paying a Revenue of Rupess 32,426 per annum. This Revenue is raised partly from the sale of grass and wood, and partly from cultivation. The right of cutting grass is generally farmed out: the right of cutting wood is sometimes farmed and sometimes preserved. Within one great Rukh (Trans-Ravee) there were founded no less than 22 villages, by Must Mungla and Lehna Sing, some years ago. These estates might have been claimed as Government property. But the occupants have been allowed an absolute title to their land, paying of course land Revenue, the waste land only of the Rukh remaining with Government. I would earnestly urge the policy of giving a *few* on specified terms to some of the Punjabee gentry, who have served us well in the late crisis. One Rukh has been leased out to the contractor Mahomed Sooltan, in consideration of his public spirit and services. The expenditure for the present year amounts to Rupees 3,260, or 11 per cent. on the gross Revenue of Rs. 28,934."

Statistics.—There were 576 schools in the district including those in the city of Lahore. The entire population of the district was:—men 2,16,851; women 1,69,187; total 3,86,038, living in 1,72,004 houses, being 2·050 for each house. The area was found to be:—cultivated 7,62.880 acres; uncultivated 15,46,538;

total 23,90,418 or 3,608 square miles. The average of inhabitants per square mile was 107, and the average of inhabitants per village 247.

Mode of Settlement.—The new settlement was made through the agency of Putwarees; their work gave satisfaction to the settlement officers and was, at the same time, performed in a manner pleasing to the people. The unit upon which the Khusruh measurement was based was the Ghomao, containing square yards 4,033. The measurements were conducted in the Baree Doab with a chain of 10 Kurrums, each Kurrum being 5·020 feet long. The Kurrum is much the same as the old Roman *Passus*, it is the space or distance between the place where one foot is set down to where the same foot is again set down. In order to fix the standard with more accuracy than could be obtained from human legs, the Kurrum was reduced to three "haths" or cubits, and the "hath" was again fixed at 27 pyce. It was unfortunate that two standards of measurement should prevail in the same district and even in the same pergunnah; but in all assessment calculations the statute acre of 4,840 square yards was exclusively used. The main divisions of soil in the district were *Chahee*, or land watered from wells, and *Baranee* or land dependent on rain for a crop. About 40 acres of land are watered by a well of which about 20 are under cultivation at one time and the rest fallow.

Fiscal History.—The rights of hereditary cultivators have been entirely created under our rule. Under the Sikhs the proprietor had always the right of ousting a tenant whenever he chose, but this was never done unless the cultivator made himself obnoxious, and the proprietor would have had to provide for the efficient cultivation of the land, or the removal of the cultivator would have been opposed by the Kardar. Of the fiscal history of Lahore before the time of Runjeet Singh, little is known. Under the Moghul Emperors a regular settlement of the country was made and the District was divided into pergunnahs. The ruins of two old forts, known amongst the country people as Kot Kurôr are still in existence in pergunnah Chooneean. It may be conjectured that they were the head quarters of the Amils, or Revenue Collectors under the Moghul Emperors, as those functionaries were known by the name of Kurorees. Another relic of the old division of the country is the group of villages inhabited by Jats of the Bhoolur tribe, which is known as the Chourasee of the Bhoolurs. This word appears to have been commonly used in Hindostan for a group of villages numbering 84 or thereabouts. These are not more than 25 of these villages now existing, and

none of the people can give the names of the whole 84. The group may have been termed a Chourasee when that number of constituent villages really existed. The country was evidently much more highly cultivated and thickly populated formerly than it is at present, and the native tradition is, that the villages situated in the high land between the Ravee and the old Beeas were assessed too highly, and were consequently ruined and deserted by the inhabitants.

After the accession of Runjeet Singh, the District was held in Jagheer by various powerful Sirdars, who occupied the several portions of it, and who were compelled to render military service, in person, with their armed followers. The Revenue was never large, and much of what might have been reasonably demanded was remitted on condition of service. The Sikh population were, almost to a man, soldiers, and many of the Mussulmans also took service. In the Rechna Doab portion of the District, the land though in many places of fair quality, was little cultivated, and the villages which now exist there, with the exception of those adjoining the Ravee, are nearly all of recent origin. Payments were as a rule made in kind; in some few instances money assessments were made, but this was only in cases where the means of irrigation were constant. In some villages a money payment was fixed for the wells, and a share of the produce of the Baranee land taken. Thus the demand was scarcely ever inflexible as it is under our system.

Summary Settlement.—The district is not one which can bear a very heavy assessment. The actual results of a revision of assessment shew a reduction of 11 per cent. The summary settlement was equalised rather than reduced.

Tribes—The population of the District consists of Mussulmans, Rajpoots, and Mussulman-Jats, and Urains and Hindoo Lobanas in pergunnah Shurrukpore. On the banks of the Ravee, Hindoo-Jats, and Lobanas are mingled with the Urains. Near Lahore Urains predominate. They are as usual excellent market-gardeners and admirable cultivators. The high land in the centre of the Baree Doab, as well as a considerable portion of the low country lying between the old Beeas and the Sutlej, is occupied by Hindoo-Jats, with a thin sprinkling of Mussulman-Jats and Mussulman Rajpoots. The banks of the Sutlej, and the southern extremity of pergunnah Chooneean, are inhabited by Mussulman Dogurs, and Urains, and Hindoo Kumbohs, and Muhtums.

The Sikhs.—The upper portion of the Baree Doab, broad and cultivated, is held by some of the sturdiest and strongest village communities in the Punjab, Jat Sikhs of the

martial sect of Gooroo Gobind Sing, with long beards, and tall stature, which furnished some of the flower of the old Sikh army, and which during the crisis of 1857, sent forth hundreds of horsemen and footmen to do battle against the enemies of the British Government. Of these villages, some have 100, some 50, some 25 proprietors of land in the Military service of the British Government. So far they have deserved well of the British Government. But in peaceful times their behaviour is not socially good, and generally more violent than in other parts of the District. Their general conduct in all times, whether of peace or war, will be worthy of observation. It was from these villages that Runjeet Sing found many of his best supporters, who commanded his Troops and administered his conquests. These he advanced to wealth and power, in the place of the earlier Punjabee chiefs, whom he had overthrown and dispossessed. The houses built by these new chiefs created by Runjeet Sing are to be found in all their villages. Many such houses are already decaying, but the traces of them are to be found all over the tract.

Rates of Assessment.—While there was one instance of 7 rupees per acre being rated on the beautiful villages near the capital, one of Rs. 4-4, and one of Rs. 3-12 in the same quarter, the average rates were as follows:—

On cultivation.	On Malgoozaree.	Total area excluding Rukhs.
0-12-2	0-5-6	0-4-4

The total revenue was Rs. 5,51,186. The extra cesses amounted to 24 per cent., which is high. The Inams of Lumberdars were generally abolished. The number of Lumberdars was 2634, being one for every 214 rupees of Jumma, and 2¾ for each muhal. In 592 villages the Government demand was distributed amongst the proprietors according to ancestral shares. In 52 Bhyachara villages the distribution was made on soil. There were in all 602 Bhyachara villages; 262 villages were Zemindaree.

Cost of Settlement.—The cost of the settlement was 68 per cent. on the revenue. This very high expenditure was owing to the poorness of the land and the faultiness of the original measurements. The rate of cost per acre of cultivation and fallow was six annas and one pie.

Land disputes.—The judicial returns show that the boundary disputes were numerous, being 539 in number: so were the disputes about the proprietary title to entire villages, being 349 in number; the disputes about shares or portions of land were extremely numerous, being 5,156 in number; this fact shows that the people are just as litigious in places where land is abundant, and sparely inhabited, as they are where it is minutely subdivided, and densely populated. It is to be remembered always

that the Bar Jungle, though waste, is valuable for forage, pasturage, and fuel, and that the manorial rights therein are prized by the people. In the Manjha itself the disputes were not serious or numerous. The respect paid to ancestral shares simplified matters much. In the low lands disputes were more numerous, as many villages were newly founded, and claims about possession were conflicting. In most parts the absence of so many men on service caused disputes: the absentees on returning home often found that their rights had been encroached on. Transfer of property was comparatively rare in the rural parts of the District. This circumstance saved much litigation. But in the vicinity of towns, especially the capital, such transactions were frequent and complicated. In these localities litigation had been rife. Difficult cases, such as Taluquadaree and the like, were not numerous in this settlement.

The settlement was confirmed for ten years from the dates borne in the several engagements made with the people.

SETTLEMENT OF THE JHUNG DISTRICT.

1856.

THE Settlement of this district of the Mooltan division was effected by Mr. H. Monckton, and the report on his operations is dated March 1859. The settlement was commenced in November 1853, and actually concluded in 1856. Mr. Cust says "one advantage of the strange delay which is allowed in reporting Punjab settlements is, that testimony is borne in a most convincing manner to the good or bad working of the settlement."

The Jhung district is wild and bare with the exception of the strips of land along the banks of the rivers Jhelum and Chenab. It is bounded on the North by Shahpoor and Goojranwala; on the East by Gogaira; on the South by Mooltan and Moozuffergurh; and on the West by portions of the Leia division.

The chief towns are Meghiana with 10,768 inhabitants; Chiniot, 10,028; Jhung, 8,626 and Shorkot 2,885. The population, by the last census in 1859, amounted to 2,36,388 of which about one-fifth consists of Hindoos. The males are to females as 4 to 3. The average population to the square mile is only 123. The extent of the district in square miles is 1625. The land revenue is about 2 lakhs. In addition to this there is a grazing tax called Trinnee, and a tax on Sujjee, a jungle produce useful in making soap. The revenue from these two sources is about 30 or 40 thousand rupees. An income of 2,000 rupees is derived from a half anna tax on fruit-bearing female date trees. The extra cesses on the owners of the soil amount to 15 per cent. Inams

are generally replaced by the Puchotra which is the approved system of remuneration under our settlement.

Mr. Monckton reviews at some length the history and fiscal progress of the district. The last of the Syal dynasty of Khans of Jhung was Ahmed Khan, son of Kubeer Khan II. In 1808 the country was conquered by Runjeet Singh.

Akbar's System.—Under Akbar measurement was made according to a beegah of an uniform standard of 3600 yards, or three-fifths of an acre. Estimates were taken of the produce per beegah of *Pooley*, or the best kind of soil, requiring no fallow, and money rents fixed for a lease of ten years on an average of prices extending over the previous 19 years. The cultivators had the option of paying in kind, the Government share being taken either by appraisement or actual division of the crop. The produce per beegah of *pooley* was estimated at 15 bushels of wheat or barley, of molasses 7½ cwt., and of cotton 5 cwt. 40 lb., uncleaned, which would be about 150 lb. of clean cotton. Fifteen bushels of wheat or barley has been found too high an estimate for the average outturn.

Revenue of India under Akbar.—The annexed table shews the extent of land brought under taxation and the revenue raised in each province in Akbar's time:—

Provinces.	Beegahs.	Lakhs of Rs.	Rate per Beegah.
Bengal, ...	Unmeasured,	150	
Behar, ...	24,44,120,	43	1 12 0
	Portion not measured,	12	
Allahabad, ...	Unmeasured,	53	
Oudh, ...	1,01,71,880	50	0 8 0
Agra, ...	2,78,62,109	162	0 10 0
Malwa, ...	44,66,221	61	1 5 0
Khandeish, ...	Unmeasured,	76	
Berar, ...	Ditto,	160	
Goozerat, ...	Partially measured,	190	
Ajmere, ...	2,14,35,961	71	0 5 0
Delhi, ...	2,85,46,806	150	0 9 0
Lahore, ...	1,61,55,643	140	0 14 0
Mooltan, ...	32,73,932	38	1 3 0
Tatah, ...	Unmeasured,	7	
Cashmeer, ...	Ditto,	186	
	Total,	1,542	

The above is in Sicca Rupees, which would represent 17 crores of Company's rupees or £17,000,000, a sum very similar to the aggregate land tax now collected from these territories, though the details differ widely, Cashmeer and Berar yielding now much less, and Bengal and Oudh much more.

Sawun Mul's System.—Runjeet Singh on conquering the Punjab made over the administration to Sawun Mul. He fixed the tax on the land actually under cultivation according to the nature of the crop grown. It was simply an excise on agricultural produce levied in the form of an average tax in money or a fixed proportion in kind according to the choice of the Zemindar. On 1st class crops, as tobacco, sugar, and poppy, money rates were invariably charged.

Cocks' Settlement.—By the treaty of Bhyrowal the British Government undertook to maintain the authority of the Lahore Durbar and to administer the affairs of the Punjab during the minority of the young Maharajah Duleep Singh. The settlement was carried out under Company's officers. The Jhung district was among those settled by Mr. Cocks. This settlement was to run for three years from 1847-48. The total cultivation was 1,38,582 acres, the land revenue Rs. 2,40,556-5, and the rate per acre 1-11-0. The number of wells was 6758.

Summary Settlement.—In 1852-53 a revision of assessment was carried out to last for three years, subsequently extended to four. The results of this summary settlement were :—Cultivated area 95,409 ; revenue 1,94,271-12 ; rate per acre 2-0-6 ; rate per well 31-5-8. The wells had decreased to 6196.

New Assessment.—Under the new assessment the average rates fall as follows. The system of Chuks being the same in the four Pergunnahs, they may be conveniently taken together :—

I.—River Chuks.

	Rs.	As.	P.
On Total Area	0	4	10½
On Culturable Area	0	5	7¾
On Cultivated Area	1	3	9¾

II.—Centre Chuks.

On Total Area	0	3	4¼
On Culturable Area	0	3	8¾
On Cultivated Area	1	0	10

III.—Bar Chuks.

On Total Area	0	2	3¼
On Culturable Area	0	2	10
On Cultivated Area	0	14	7

This gives an average rate, on the cultivated area of the District, of Rs. 1-1-6. The Assessment of the 623 villages, of which the District consists, is Rs. 2,02,157.

Except in one or two trivial instances, there had been no occasion for a revision or correction of the work of the Settlement officer; the revenue had been realized with almost perfect punctuality; in no instance had there been a necessity for resort to the mildest coercive process; and even *dustuks*, or notices to pay, had decreased to such a merely nominal figure, as not to cover the regular pay of the establishment entertained for their issue. The agriculturists of the Jhung district were contentedly fulfilling their engagements with the State, and steadily pursuing their ordinary avocations, while the adjoining district of Gogaira was in a full blaze of insurrection, and the nomad tribes of the intervening Bar jungle were sacking the frontier Thannahs. The pastoral tribes on the other side, in the Shahpoor District, were showing at the same time a warlike spirit; and had not the memory of days of license under the Sikh rule been succeeded by better feelings among the Mahomedan population of this District, a serious revolt in the southern provinces of the Punjab must have been added to the many lesser complications arising from the mighty struggle then in progress throughout upper Hindustan.

JAILS IN LOWER BENGAL.

1859-60.

Dr. Mouat, Inspector General of the Jails of the Lower Provinces of the Bengal Presidency, submits his report to the local Government for the official year. The tables of mortality only are for the calendar year. On the 17th January 1861 the orders and observations of the Lieutenant Governor are communicated to Dr. Mouat. As in some respects they correct his statistics, the Lieutenant Governor's facts are adhered to in this abstract where they differ from those of the Report.

Number of Prisoners.—There were 54 jails under the Inspector General's control. There were 71,467 prisoners against 75,141 of the previous year:—

		1858-59.		1859-60.	
Number remaining in Jail on the 30th April ...	Males	21,024		18,782	
	Females	588		617	
			21,612		19,399
Number admitted into Jail during the year ...	Males	53,101		50,715	
	Females	428		1,353	
			53,529		52,068
Total ...			75,141		71,467

showing a considerable decrease in the number of those accused of crime with a large increase of crime among females. They were thus disposed of:—

	In 1858-59.	In 1859-60.		
		Males.	*Females.*	
Transferred to other Districts ...	11,736	12,341	260	12,601
Released	39,974	36,012	999	37,011
Escaped	1,447	255	4	259
Died	2,440	2,444	55	2,499
Executed	145	70	6	76
Remaining in Jail on the 30th April	19,399	18,375	646	19,021
Total ...	75,141	69,497	1,970	71,467

Of 28,982 prisoners who were convicted out of the number admitted to jail during the year there were 27,362 criminal prisoners, 1,403 civil prisoners, 96 state and political prisoners and 99 dacoity prisoners. The number of *hajut* prisoners was

1800 of whom 1319 were under trial, 387 committed to the Sessions and 94 under reference to the Nizamut Adawlut. There were 255 lunatics (not criminals) confined for safe custody : 20,935 were released, 55 died, and 41 escaped, making 52,068 prisoners in all.

Disposition of Prisoners sentenced to Labor.—The following Table gives a comparative view of the disposition of the Laboring Prisoners during the last two years, and of their aggregate strength :—

	1858-59.		1859-60.	
	Average number.	Percentage on the total strength.	Average number.	Percentage on the total strength.
Inefficient from age or disease	3339	20·71	3459	21·60
Employed as Jail Servants	2148	13·32	1995	12·46
Ditto on Roads ...	2245¼	13·92	1170	7·30
Ditto on Miscellaneous Works	2376	14·73	2241	13·99
Hired by the Department of Public Works	160⅖	0·99	120	0·74
Ditto by other Departments	242¼	1·50	210¾	1·31
Employed on Manufactures	5494	34·08	6673¼	41·64
Ditto in the Alipore Jail Press	116	0·71	140	0·87
Total	16121		16009	

On this the Lieutenant Governor remarks that the average number of Prisoners employed on manufactures had increased from 5494 in the previous year, to 6673¼ in the year under review,

and that the employment of Prisoners on Roads had decreased by nearly half.

The Financial Results, the Lieutenant Governor considers "highly gratifying."

	1858-1859.			1859-60.		
Value of articles sold	2,20,998	12	10¼	2,66,740	14	10¾
Value of articles consumed for public purposes	23,072	10	5¼	22,160	8	2½
Total receipts ...	2,44,071	7	3¾	2,88,901	7	1¼
Deduct charges ...	1,38,319	6	0¼	1,51,661	14	8½
	1,05,752	1	3½			
Add excess of actual receipts over charges of the Mongyrh and Durrung Jails, beyond the amounts given in the Report, as per Magistrates' explanation	1,356	6	8¾			
Net receipts ...	1,07,108	8	0¼	1,37,239	8	5
Deduct	...	...	...	1,07,108	8	0¼
Excess	...	...	...	30,131	0	4¾

Thus there was not only an increase of Rupees 57,256 in the *net produce* of Manufactures, but also an increase of about Rupees 30,000 in their *net profits,* or in the excess of actual receipts over actual charges. The numbers of Manufacturing Prisons and Prisoners increased from 46 and 5,610 respectively in 1858-59, to 53 and 6,673¼ in 1859-60. The most marked success was in the Alipore Jail, in the suburbs of Calcutta, "the Model Prison of the Lower Provinces." Its profits amounted to Rs. 36,141, being an increase of Rs. 26,588 on the preceding year. The cost of each prisoner was Rupees 38-5-11, and the earning of each manufacturing prisoner Rupees 44-9-0·2. The cost of the Hooghly prison was

Rupees 28,436-5-0½, the net profits on manufactures were Rupees 18,806-0-0: the earning of each manufacturing convict was Rupees 47-11-8·3, and his cost Rupees 32-10-11 and would have been greater but for the accidental failure of the chief purchaser from the Jail. At Akyab the gross cost amounted to Rupees 20,492-13-2 ; the net profits to Rupees 11,052-2-3 ; the cost of each convict to Rupees 65-14-3; and the labor of each workman to Rupees 90-9-5·5. Of this, however, only Rupees 394 was from manufactures. The rest was owing to the value of the convict labour on the roads. Thus, the manufacturing prisoners at Hooghly repaid two-thirds of the whole cost of the Jail: and at Alipore and Akyab more than one-half. The following are the general financial results of the year, including all branches of labor, and the fines realized in lieu of labor.

Net profits on manufactures	1,73,943	0	0¾
Amount received from Public Works Departments	9,004	9	8½
Total value of labor during the year	1,82,947	9	9¼
Add fines collected in commutation of labor	24,942	9	0
Grand Total ...	2,07,890	2	9¼

From this statement is excluded all labor for which no cash payment was made. The cost of the fifty-four Jails and Subdivision lock-ups, during the year 1859-60, was Rupees 7,95,109-11-7¼, *viz.* :—

	1858-59.		1859-60.	
1. Cost of Rations, ...	4,98,444 12 8¼		4,52,363 5 7½	
2. Money Allowance, ...	1,922 14 1½		2,406 14 7½	
		5,00,367 10 9¾		4,54,770 4 3
3. Fixed Establishment, ...	1,50,870 9 5		1,37,595 10 8	
4. Extra Establishment, ...	71,700 4 6½		61,694 3 2¾	
		2,22,570 13 11¾		1,99,289 13 10¾
5. European Medicines, ...	5,131 6 8½		4,133 12 5	
6. Bazar Medicines, ...	5,860 10 4½		4,542 12 4¾	
7. Sick Diet, ...	8,358 3 9¼		6,419 14 5	
8. Furniture, (including Bedding and extra Blankets,)	831 8 8¾		1,326 12 3¼	
		20,181 13 7		16,423 3 6
9. Clothing, (including Bedding and Blankets,)		63,330 7 1		63,033 6 11½
10. Contingencies, (including Stationery,) ...		61,090 13 3¼		47,592 0 4
11. Additions, Alterations, and Repairs by Magistrates, ...		16,377 14 6½		14,000 14 8¼
		8,83,919 9 3¼		7,95,109 11 7¼
	Against of the previous year			8,83,919 9 3¼
	Decrease			88,809 13 8

The gross charges being divided among the average number of prisoners in the two past years, give the following results:—

	1858-59.			1859-60.		
Rations, ...	24	10	8	23	14	11
Fixed Establishment, ...	7	7	0	7	3	10
Extra Establishment, ...	3	8	7	3	3	11
European Medicines, ...	0	4	1	0	3	6
Bazar Medicines, ...	0	4	7	0	3	10
Sick Diet, ...	0	6	7	0	5	5
Hospital Furniture, ...	0	0	8	0	1	1
Clothing, (including Bedding and Blankets,)	3	2	0	3	5	1
Contingencies, (including Stationery,) ...	3	0	2	2	8	1
Additions, Alterations, and Repairs, ...	0	13	0	0	11	9
	43	9	4	41	13	5
Or against of the previous year, ...				43	9	4
Decrease per head, ...				1	11	11

Showing a small diminution in every item of charge, except clothing and hospital furniture, in which there was an increase. A large portion of the advantage in favor of the year under review was due to a diminution in the average number of Prisoners under custody; the numbers being 20,282 in 1858-59, and 19,003 in the year in question. Taking, however, the average total charges of each Prisoner during the two years into account, it would appear that there was still a reduction in expenditure, to the amount of Rupees 33,156-4-5, upon the 19,003 Prisoners in the latter, compared with the same number in the former year, which satisfactorily establishes the fact that an appreciable amount of economy was observed in the Department:—

	1855-56.			1856-57.			1857-58.			1858-59.			1859-60.			
	55 Jails.			54 Jails.			52 Jails.			54 Jails.			54 Jails.			
	19102 Prisoners.			19151 Prisoners.			18880 Prisoners.			20282 Prisoners.			19003 Prisoners.			
	Rs.	As.	P.	Rs.	As.	P.	Rs.	As.	P.	Rs.	As.	P.	Rs.	As.	P.	
Average cost of Dieting	20	8	3·0	21	6	3·1	22	5	3	24	10	8·0	23	14	11·0	* During the first three years all charges for Sick Diet and Hospital Furniture were included in the Bills for Bazar Medicines.
Ditto of Fixed Establishments ...	8	11	7·3	9	2	4·2	8	13	8	7	7	0·0	7	3	10·0	
Ditto of Extra Establishments ..	4	14	7·7	4	13	7·4	3	15	7	3	8	7·0	3	3	11·0	
Ditto of European Medicines .	0	3	6·7	0	3	11·4	0	4	5	0	4	1·0	0	3	6·0	
Ditto of Bazar Medicines ...	0	10	1·7	0	9	0·6	0	11	4	0	4	7·0	0	3	10·0	
Ditto of Sick Diet	0	0	0	0	0	0	0	0	0*	0	6	7·0	0	5	5·0	
Ditto of Hospital Furniture, including Bedding and Extra Blankets ..	0	0	0	0	0	0	0	0	0*	0	0	8·0	0	1	1·0	† Exclusive of the Sub-Division Lockups in Patna, which were erroneously omitted from the Magistrate's accounts of the Jail for the year, and consequently not taken into account in the Inspector General's Report.
Average cost of Clothing, including Bedding and Blankets	2	9	1·0	2	10	10·1	2	9	8	3	2	0·0	3	5	1·0	
Average cost of Contingencies	1	7	8·5	1	8	7·5	1	15	10	3	0	2·0	2	8	1·0	
Ditto of Additions, Alterations, and Repairs made by Magistrates, ...	1	15	2·4	0	8	2·9	0	14	10	0	13	0·0	0	11	9·0	
Total average cost per Prisoner ...	41	0	2·3	40	14	11·2	†41	10	7	43	9	4·0	41	13	5·0	

Those jails were most cheaply dieted in which the contract system was abolished. The cheapest jail was that of Cuttack in which the average cost of each prisoner was Rs. 25-15-9, and the dearest that of Maldah in which it was Rs. 74-5-4.

Sickness and Mortality for 1859.—The whole number of deaths during the year 1859 was 2,116 against 2,800 of the preceding year, among an average strength of 19,546 prisoners, against in the previous year 20,714, or in the ratio of 10·82 per cent. on average strength in 1859 to 13·52 in 1858. Of the casualties there were:—

Of Hindus	1,334	against	1,923 in 1858.
Of Mussulmans	606	„	628 „
Of Christians	25	„	4 „
Of other denominations ...	151	„	245 „
Total ...	2,116		2,800

As regards sex there died:—

Of Males	2,066	against	2,782 in 1858.
Of Females	50	„	18 „

Many of the aged female life-convicts were beginning to die off. The healthiest Jail was Jessore. Comparing the mortality of 1859 with that of 1858, the numbers of the Jails which suffered in similar degrees during the two years stand as follows:—

	In 1859.	*In* 1858.
Number of Jails in which the total mortality did not exceed 6 per cent.	15	21
Number of Jails in which the total mortality exceeded 6, but did not exceed 12 per cent.	20	13
Number of Jails in which the total mortality exceeded 12, but did not exceed 20 per cent. ...	16	13
Number of Jails in which the total mortality exceeded 20 per cent....	3	7

Highest rate of Mortality in each year.

Purneah in 1859	33·73	per	cent.
Akyab in 1858	78·38	„	„

The Lieutenant Governor remarks, though much of the sickness and mortality of the year may have been due to the unhealthy state in which Prisoners were admitted into Jails, and to the prevalence of cholera, and the general epidemic that overran the Behar Districts, yet much is unfortunately to be ascribed to defects in Jails which were easily removable, and which should have been removed by the Officers in charge of them. The following complaints most frequently recur:—Diet is complained of in respect of nine Jails, clothing in respect of thirteen, ventilation in seven, drainage in nine, conservancy arrangements in twelve, badness of water in wells in one (Chumparun), and over-crowding in the case of ten. The subject of diet is under consideration. In other respects reforms are at once to be adopted. Out of fifty-four Jails, twenty-one had more than they should properly contain at the end of the last year, and the excess number of Prisoners in them aggregated 2,225, whilst thirty-two Jails had spare room for 4,059 Prisoners. The greatest mortality was among thieves, dacoits, murderers, cattle-stealers, burglars, and mutineers, who aggregated 64·17 per cent. of the deaths. With regard to occupation prior to imprisonment, the agriculturists, laborers and servants contributed the largest numbers to the mortality of the year. The agriculturists alone amounted to 52·74 per cent. of the casualties, against 68·68 of the prior year. During the year there were admitted into Jail 25,548 of this profession. The ages that suffered most are shown below, as compared with the preceding year:—

25 years 88 or 4·16 per cent. of the casualties against 100 or 3·57 per cent. of the casualties of 1858.

30 years	203 or 9·59	ditto	ditto	298 or 10·64	ditto.
35 „	243 or 11·48	ditto	ditto	253 or 9·04	ditto.
40 „	305 or 14·41	ditto	ditto	423 or 15·11	ditto.
45 „	180 or 8·51	ditto	ditto	189 or 6·75	ditto.
50 „	161 or 7·61	ditto	ditto	261 or 9·32	ditto.
60 „	106 or 5·01	ditto	ditto	177 or 6·32	ditto.
	1,286 or 60·77	ditto	ditto	1,701 or 60·75	ditto.

One life prisoner died at the age of 102 after being confined 52 years. August, September, October, November and December were the most prolific in deaths from dysentry. May, July, October, November and December were the periods in which cholera proved most fatal.

Causes of Death.—There died:—

	In 1858.		In 1859.	
	Deaths.	Ratio per cent. on average strength.	Deaths.	Ratio per cent. on average strength.
From Cholera	366	1·77	342	1·75
„ Dysentery	1,048	5·06	739	3·78
„ Diarrhœa ...	420	2·03	342	1·75
„ Fever	202	0·98	121	0·62
„ Phthisis	99	0·48	131	0·67
„ all other diseases ...	562	2·71	410	2·09
„ other causes, (accidental, suicidal, old age and decay) ...	103	0·49	31	0·16
Total ...	2,800	13·52	2,116	10·82

Cholera is an unaccountable disease which obeys no ordinary ascertained laws of mortality, and is as fatal without as within the Jail. The real prison diseases are diarrhœa, dysentery, and in a minor degree, phthisis The diminution of dysentery and diarrhœa was marked. Of deaths from tubercle there was an increase.

Escapes.—The number returned to the former average, the effects of the mutiny having ceased. Of a daily strength of 19,003, only 259 escaped, or a proportion of 1·36. The proportion of the previous year was 7·13. Of these 86 were recaptured. Rupees 3,004, were paid for re-captures, each costing Rupees 35 (nearly.) Every escape was traced to neglect and inefficiency of the guards, combined, in a few instances, with insecurity of the Jail from which the runaways broke loose.

Education.—Of the 52,068 prisoners admitted into Jail during this year, 2,644 or 5·08 per cent. of the number confined could read and write. Of the whole number in custody, 814 or 1·56 per cent. were reported to be well educated for their position in life. The remaining 47,252 males and 1,352 females, or 93·34 per cent., were altogether ignorant. It would be difficult to show

stronger proof of the necessity of educating the mass of the population than is furnished by these figures.

Political Prisoners.—144 were confined for reasons of state in Hooghly Jail and 49 and 19 state prisoners were liberated from the Ramree and Durrung Jails respectively. The Lieutenant Governor calls for full information regarding them and directs that such prisoners may henceforth be designated as the Commissioner of Chota Nagpore was instructed to designate similar cases, "Prisoners from the Tributary Mehals."

General.—The Lieutenant Governor urges that the plan for the establishment of Jail Gardens, authorised 4 years ago, be carried out more energetically and thus expresses his "very great satisfaction" with the Report. "The general results secured are very highly satisfactory, exhibiting on the whole a large decrease of expenditure, a considerable increase of the profits of Prison industry, a material reduction in the mortality in Jails, and the enforcement of stricter discipline among Prisoners. Most of these matters are of course susceptible of still greater improvement, as has been observed under their proper heads; but what has been done during the year, in comparison with the results of previous years, speaks highly in favor of the able and zealous supervision which you have exercised over the Department which is under your control."

MOORSHEDABAD—STATISTICAL AND GEOGRAPHICAL REPORT OF THE DISTRICT.

1857.

THE report is prepared by Captain J. E. Gastrell, 13th N. I., Revenue Surveyor of the 4th Division.

Geography.—The District of Moorshedabad lies between the Parallels of 23° 39′, and 24° 46′, North Latitude, and Meridians of 87° 40′ and 88° 45′ East Longitude. It comprises an area of 1686053·162 acres=2634·45 square miles. The Ganges separates it on the North and East from Malda and Rajshaye, the Jellinghee from Nuddea on the South East. To the South it is bounded by the Districts of Nuddea and Burdwan, and to the West, by those of Beerbhoom and Bhaugulpore. The Bhaugiruttee River divides it into two nearly equal portions as it flows through it from North to South; that to the West, being known to the native inhabitants by

its old Hindoo appellation of "Barhi" or "Barh;" that to the East by the name of "Bagur," or "Baguri." These were names of two of the six great Divisions of Bengal, into which the country was divided when the ancient City of Gour, the ruins of which still exist, was the Hindoo Capital. Subsequently the Mahomedan conquerors divided and sub-divided the District into Chuklehs and Pergunnahs.

Survey.—The lands of Pergunnahs have become so intermixed that the District was divided by the Survey into conveniently sized main Circuits, to each of which the name of the Pergunnah was given, to which the greatest number of its Villages belonged. The Villages were surveyed singly, and boundaries carefully defined where possible. Otherwise two or more were included in one boundary. In one Village alone 1,700 such plots had to be surveyed severally. Again, in other places so great was the intermixture, that nothing but field by field or Khusreh Survey could unravel it. The total number of Estates on the Rent-Roll of the District is 2,720, of which 165 are Government Khas Mehals. To obtain the area of these and the Estates of other Districts holding lands in Moorshedabad about 1,00,000 plots or Chuks had to be measured, allotted, and calculated. The measurements and allotments were performed by the Civil and the calculations by the professional Survey parties. The average area per Village Circuit is 510·32 acres or 0·797 square miles.

Criminal Divisions.—The Magistrate resides at Berhampore and takes charge of the Southern division. A Deputy Magistrate at Jungypore takes charge of the Northern division.

Judicial.—The Judicial jurisdiction is sub-divided into six Moonsiffships, at the following places:—Jungypore, Lall Bagh, (Moorshedabad,) Kandee, Goas, Rookoorepore, and Betlapore, all under the Civil Judge at Berhampore.

Cultivation and Productions.—The soil is alluvial. In the high land it is grey-coloured or red mixed with lime and oxide of iron. In the North West are a few Basaltic Hills. The country is highly cultivated, the highlands chiefly with rice and prettily wooded, the low lands also with different kinds of pulse, indigo and mulberry.

Tenure.—The whole of the lands, with a few exceptions of rent-free tenures and Khas or Government lands, are held under the Decennial Settlement, and like most other parts of Bengal are let and sublet to almost the fullest extent, several parties coming between the rent-payer to Government and the Ryot. Rents of land under the above Settlement having been fixed before any Survey existed, or the value or extent of the Estates was known, vary very considerably.

Revenue.—The total land Revenue of the District is as follows:—

Towjee, or fixed Revenue, Company's Rupees	12,98,709	12	2
Ditto fluctuating „	908	0	0
Total, Company's Rupees	12,99,617	12	2

This gives an average of Company's Rupees 0-13-0½ per acre for the whole District area, exclusive of the Bhaugiruttee River area, or, rejecting Village sites, Beels, Khalls, Roads, &c., of Company's Rupees 0-13-9 2-5th per acre. But as all these, excepting Roads, Hills, and Sand, give ample returns to the land-owner, the first may be taken as the fairest rate, on an average, paid to Government.

The Rivers are restrained from overflowing their banks by bunds which the fishermen often destroy. The Ganges, Bhaugiruttee and Jellinghee are navigable; the unnavigable streams are the Brahminee, Dwarka, Pagla and Bansloee which issue from the Rajmehal Hills, and the More which rises in the North-West of the Beerbhoom District; these are the principal on the Western side of the Bhaugiruttee, or "Barhi," half of the District. In the Bagur or Eastern Division are the Bhayrub and Seealmaree, to small effluents of the Ganges flowing into the Jellinghee. These are connected during the rains with the different Beels and Khalls, and form a net-work of water communication throughout this portion of the District, especially useful in the absence of Roads. There are many small lagoons termed Bheels.

Cities.—The principal Towns of the Barhi or Western half of the District are Pulsa, a Railway Station on the banks of the Bansloee, where there is a Thannah; Paikur, on the Pagla Nuddee, a fine Town with 1,400 houses; Paikpara, Nulhattee, (Railway Station,) Rytha, Bera, Bhudurpoor, Margram, the largest Town of the high ground, with a population of about 10,000 souls. There are said to be 700 Silk weavers here. Belia Narainpoor, a large Village on the right bank of the Pagla Nuddee, is a market for Iron ore, brought from the Beerbhoom District; sixty-two furnaces are worked here, smelting, and reducing the ore. On the low lands are Aurungabad, where there is a Deputy Magistrate's Cutcherry; Chowkah; Sooty, at the junction of the Bhaugiruttee and Ganges, of which a great portion has been cut away by the encroachment of the latter River in 1856; Gysabad or Budrehat, on the banks of the Bhaugiruttee, stands on a hard bank of clay and kunkur. In its vicinity are found remnants of old pottery, old wells, the remains of a Fort

or Palace, and ancient stone slabs engraved in Pali characters, all demonstrating this to have been the site of an ancient city. Gowkurrún, Burrooa, and Gobindpoor or Sherpoor, are also good-sized Towns, with Bazars and market in each. In the Bagur or Eastern Division is Jungypore. About five miles North East is the Battle Field of Gheria, where Meer Cossim Ali Khan, a former Nawab, made his final stand in arms against the British Government, and from whence he fled to Oude after being defeated by Major Adams. When the Battle was fought, the site was on the bank of the Ganges; the River is now some miles distant. Every year of late has seen it, however, gradually coming back to its old channel. Jeeagunge, on the Bhaugiruttee, South-East of the latter about twenty miles, is the chief mercantile city in the District, and a Post Office station; it is the residence of numerous Native Merchants, Money Lenders and Native Agents carrying on trade with Calcutta, the Upper Provinces, and the Eastern Districts of Bengal. They deal chiefly in Cotton, Saltpetre, Sugar, Rice, and Silk. A few miles to the North-East is Bhogwangolah, another Post Office station, on the banks of the Ganges. Finally there is Moorshedabad, called by the natives Mooksoodabad.

History.—To Moorshedabad the seat of Government was transferred from Dacca by Nawab Jaffier Khan, appointed Subadar of Bengal by Aurungzebe. He died in 1725, and his son-in-law Shujah-oo-Dowlah who succeeded him in 1739. His son Allah-oo-Dowlah after 14 months' reign was murdered by the usurper Aliverdi Khan, an Affghan chief, who after reigning 16 years, in 1756 was succeeded by his grandson Gholam Hossain Sooruj-ood-Dowlah. He was the author of the Calcutta Black Hole atrocity, and on his flight from the field of Plassey was murdered by Meer Jaffier Khan's son. Meer Jaffier was dethroned in 1760 by the English who placed his brother-in-law, Meer Cossim Ali, in his stead, but the English again replaced Meer Jaffier who was succeeded by his son Nujeem-ood-Dowlah in 1764. Meer Cossim was defeated by Major Adam in the Battle of Gheria. In 1766 Nujeem-ood-Dowlah was succeeded by his brother, he by his son in 1769, he by his son in 1810, he by his brother Wallah Jah. The title then descended to Humaioon Jah, who died in 1838, and was succeeded by his son the present Nawab Nazim, a highly educated and accomplished Prince.

Topography of Moorshedabad.—Seven miles south of the "city" is the military and civil station of Berhampore, with one Irregular Cavalry, one Native Infantry Regiment and two Post

Guns. Three miles North East of the Station are the ruins of the Residency and Silk Filatures of Cossim Bazaar, where is the tomb of Mrs. Warren Hastings. West of the Residency is the site of the old Dutch Factory of Kalkapoor, which was taken possession of by a party of the Hon'ble Company's Troops under Colonel Ironsides on 6th July 1781, by order of Mr. Warren Hastings. In the burying ground attached forty-seven Monuments still exist; the oldest is that of Daniel Von Der Muyz dated 16th May 1725. Further to the West, stands the Armenian Church with a high square Tower, Priest's house, and burying ground enclosed in one compound. These were built by a Mr. Peter Aratoon in the year 1758; they are kept in excellent order, forming a strange contrast to the places last mentioned. The Armenian Priest is relieved by another from Armenia every fifth year. Near to this is the old French Settlement, still known by the name of Frasdanga, though the houses have disappeared.

Houses.—The number of brick or pucka houses in the District, as taken during the survey, was 7331. That of Kutcha, or grass-roofed houses with mud, or grass walls, 2,12,683.

Population.—The total population of the Districts as taken during survey by counting houses, and allotting five souls to each house, was 1,100,080; of these 3,95,363 were Mussulmans and 7,04,717 Hindoos. With the exception of Traders in the Towns on the banks of the Rivers, Silk Weavers in the Mulberry tracts, a few Bunnyas in the different bazars, together with Muchees and Potters, &c., enough to supply the wants of the people, the inhabitants are agricultural. The proportion of Hindoos to Mussulmans is as 1 to 0·561, the average of souls per square mile of the whole District is 441.33, and of cultivated land 509·61; giving 1·25 acres to each soul's consumption. The average number in each Village are 139 souls. Bengali is the principal language. The better classes understand Oordoo. The district is not healthy, fever and cholera being its scourges.

Education.—There are a Government College at Berhampore with 238 pupils, Mission Schools belonging to the London Society with 137 pupils and two Colleges in Moorshedabad, one of which is reserved for the Nawab's family.

State of Litigation and Crime.—In 1855 there were 3568 cases in the Magistrate's Office against 1151, the average of the six years from 1829 to 1834. The detailed list shews a striking diminution in heinous offences. The increase is under the head 'miscellaneous,' of which there were 2536 in 1855 and

in 1834 only 93. Taking the data of comparison of population above fourteen to population under fourteen years of age, the total above 14 would be 7,15,052 and the centesimal proportion of crime to population above 14 would be 0·498.

The Manufactures are chiefly Indigo and Silk. The former are in the "Bagur," the rich low lands along the Ganges; the Churs, or Islands in its course; and the low lands near Jheels and water-courses, refreshed by inundation deposits, offer the best prospect to the Planter. It often happens, however, that sand deposited is not good soil; that Churs which yielded a splendid return one year, are moved lower down the River to another and more favored Village the next. As to Silk, the cocoons have decreased of late years in value and size as the worms are fed on the least possible quantity of mulberry. The manufacturer generally advances money to the Ryot for the purchase of Stock (worms), and mulberry plant:—and in such cases, a small reduction in price is generally made by the Ryot for cocoons; but the risk in advancing money is great, because, should anything happen to the worms or cocoons, to decrease the quality or quantity of the silk, or perhaps destroy the yield altogether, the Ryots are generally too poor to repay the advance, setting aside their unwillingness if they could do so. In Moorshedabad District, cocoons are purchased by number; in Rajshahye, the adjoining District across the Ganges, by weight. Of the two, the first system is perhaps more generally preferred by the purchaser.

Postal Arrangements.—Under the old system 2,10,101 letters were despatched and received; under the half anna Act there were 2,17,025 in a year. There was an increase on all kinds of letters despatched and received of 3·29 per cent., and on paid letters of 63·35; whilst on bearing letters there was a decrease of 54·16 per cent.

Taxation.

1ST—LAND REVENUE.

Towjee under fixed Revenue ...	12,93,100	2	10½
Ditto fluctuating	908	1	0
Total Land Revenue	12,94,008	3	10½

2ND ABKARREE ...	net Rs.	77,618
3rd Chowkeydaree ...	,,	31,507
4th River Tolls ...	,,	88,167

Under the Mahommedans artisans paid "Manjee Salamee;" Bullock men paid "Paul Salamee," and all paid "Birtee," an

increase of one anna in the rupee on certain articles, added to Government revenue.

Wild Animals.—Tigers are occasionally found to the North-West of the District, that have probably strayed from the Rajmahal Hills; Leopards, Civet and Wild Cats find cover in the jungles about the native villages. Rhinoceros have been seen in the Northern part of the District: a few Buffaloes still remain in the Nourunga and Soulmaree bheels, and a few Pigs are found about the different swamps and on the Churs of the Ganges. But all are yearly becoming more and more scarce, and little sport is now to be found in the District. Cultivation is rapidly effacing the last traces of wild animals.

Cost of the Professional Survey.—The total cost of the Professional branch of the Survey was Company's Rupees 73,317-8-8, being at the rate of Company's Rupees 27-13-3 per square mile; Company's Rupees 33-7-3 per Village circuit of one or more Villages; Company's Rupees 12-8 per Mouza or single Village, and Company's Rupees 26-14-9 for each Estate appertaining to Moorshedabad. The average error was 2·80 feet per mile, a very small difference. The European landholders valued the maps. Not so the natives who at first suspected that the Survey was undertaken with a view to the resumption of land. In cases where the Survey showed that their holdings contained a greater area than they were before aware of, they could not understand why they should be allowed to levy rents on the excess, and still, that Government should not tax them for such excess.

General Statistics.—The whole of the area of the district was thus occupied:—

Roads	acres	7464·20
Jheels	...	24692·06
Hills	...	556·50
Long grass, jungle and sand ...	...	58364·74
Tanks and rivers	...	71980·95
Mango Topes	...	10396·10
Sites	...	44722·41
Cultivated or fit for cultivation	...	1381526·09
Waste	...	213739·11

There were 569 temples, 235 mosques, 3 forts, 3 sugar golahs, 51 Indigo factories, 62 Silk factories, 3 Salt golahs, 10 stations of the Great Trigonometrical Survey, 147 liquor houses, 42 Thannahs and 70 Police Chowkeys. The average of population to each square mile was 441·33.

REVENUE ADMINISTRATION
OF THE NORTH WEST PROVINCES.

1859-60.

THIS report was submitted to Government by Mr. Lowe, Secretary to the Sudder Board of Revenue, North West Provinces, on the 25th of June 1860. The Rubbee crop of 1859, which depended upon the rains of 1858 and the showers of the succeeding winter, was generally good throughout the country, but the rains of 1859 were everywhere unfavourable. The result was an extremely scanty khureef. The Rubbee crop of 1860 in many quarters altogether failed, and the prospects for the succeeding year were in several districts gloomy. The upper Doab and Rohilkhund were the quarters in which the greatest scarcity prevailed. On the other hand prices of produce were high, and the profits from Indigo, Cotton, and Sugar in some districts made up for the dearth of cereals.

Land Revenue.—The total demand of the year was Rupees 4,18,59,982, of which Rs. 4,08,82,217 were collected within the year and Rs. 9,77,765, or 2⅓ per cent., remained uncollected. The balance of the previous year was 6½ per cent. Of the balance about one-fifth was expected to be realized, the remainder was nominal. The balances in some districts were mainly attributable to resettlement operations which had not yet been sanctioned by Government. The Jubbulpore and Jhansee divisions were, during the greater part of the year, disturbed by roving bands, the last embers of the rebellion having lingered longest there. The revised settlements in progress would have the effect of conforming the demand of Government to the assets.

As regards the variation of the demand as compared with the previous year, there was a decrease in twenty districts and an increase in fourteen, leaving a net decrease of Rs. 1,22,635. The variation was chiefly caused by the assessment of resumed lands, by alluvion and diluvion and by the occupation of lands for public purposes.

Dustucks.—The number as compared with the previous year fell from 1,42,788 to 1,25,633. Mr. Inglis proposed to do without dustucks altogether, but the Board do not approve of such a proposition and in this opinion they are upheld by the Lieutenant Governor.

Coercive Measures.—Upon the whole the revenue was realized with great punctuality and with a small resort to punitive mea-

sures. In many districts there was need for neither sale nor farm, transfer nor sequestration.

Summary Suits and Suits under Act X. of 1859.—The Summary Suit Court was not closed till the 31st July. The return of suits under that procedure are accordingly given separately.

The working of Act X. was almost unanimously praised by Commissioners and Collectors. It was introduced from 1st August 1859. During the nine months it was in operation 12,431 cases were instituted, 10,553 decided, and 1878 pending. The cases were classed as follows:—

Class of Cases.	*Total Number Instituted.*	*Decided.*	*Pending.*
Class I. Pottahs and Kubooleuts, ...	765	583	182
„ II. Illegal exaction, ...	395	339	56
„ III. Excess or abatement, ...	620	527	93
„ IV. Arrears of rent, ...	7,446	6,326	1,120
„ V. To eject Tenants, ...	669	568	101
„ VI. To recover possession, ...	1,444	1,357	87
„ VII. Suits connected with distraint, ...	1,020	789	231
„ VIII. Suits against Agents, ...	72	64	8
Total, ...	12,431	10,553	1,878

The number of sales in execution of Civil decrees was great, but some officers gave their testimony to the practical benefits of the provisions of Act VIII. of 1859, by which the Collector may obtain sanction of the Civil Court to stay the sale, in prospect of a satisfactory settlement between the decree-holder and defendant.

Abkaree—This branch of the revenue continued rapidly to rise. The actual *collections* were not only 4½ lakhs in excess of last year's revenue, but were higher than they were the year preceding the outbreak of disturbances. The only two districts in which a decrease was permitted were Furruckabad and Cawnpore. The demand for 1267 Fuslee, or October 1859 to September 1860, was Rs. 23,14,198.

Stamp Revenue.—This also exceeded the revenue of 1855-56. It amounted to Rs. 13,68,808.

Sayer.—The Sayer revenue fell from Rs. 1,14,658 to Rs. 1,08,947; but this did not include the income from Forest Agency and the Terai Pergunnahs.

Work done.—The number of cases disposed of by the Com-

missioners, district officers and their assistants during the year, was 3,06,941, of which 40,789 were pending at the close of the year. The number of letters addressed by Collectors to Commissioners was 14,737, by Commissioners to Collectors 13,404. Over-correspondence, which once existed, was generally supplanted by the opposite tendency, on account of pressing executive duties.

Finance.—The financial result of the year was that the revenue in all departments increased from Rs. 4,57,93,340 to Rs. 4,85,59,442.

	1858-59.	1859-60.
Land Revenue, ...	3,92,87,626	4,08,82,217
Abkaree, ...	16,80,146	21,29,247
Stamps, ...	10,42,696	13,68,808
Sayer, ...	1,14,658	1,08,947
Customs, ...	36,68,214	40,70,223
Grand Total, Rs.	4,57,93,340	4,85,59,442

Indigo.—The following is an extract from the report of the Collector of Benares regarding the increased cultivation of Indigo by native land-holders. "I consider it advisable to bring to your notice the extraordinary increase of Indigo cultivation amongst the natives during the past three or four years. The class who principally cultivate are not the old hereditary Zemindars, but the bankers, buneeahs, and other such like interlopers. The article they turn out is of a very inferior quality, and not to be compared with that manufactured by the European planters; but they are not bound by the same rules of etiquette which confine the latter to cultivate only within limits, and thereby prevent any possibility of encroachments and consequent misunderstandings." In three of the districts, Jhansie, Jaloun and Chundeyree, measures of re-settlement and revision of Jumma were in progress.

Statistical Precis.—In 1859-60 the area in square British statute miles of 640 acres of the North West Provinces, was 114,582·8; the population 30,840,447, the number of pergunnahs 477, and of Muhals 87,781. The annual expense of collecting the revenue, exclusive of Heads of offices, covenanted and uncovenanted Sudder establishment was Rs. 13,53,057, and the percentage on revenue 5-3-9. In 1858-59 the percentage was 3-6-5.

THE SIND FORESTS.

1859-60.

THIS report is submitted to Government on the 23rd of April 1860, by Mr. Dalzell, Forest Ranger in Sind.

The revenue from the Sind forests in 1859-60 was Rs. 98,884 2-0, against Rs. 72,150-5-0 the previous year. The net surplus was Rs. 43,884-2-0 being nearly double that of 1858-59. The chief item in the receipts was that for firewood, which amounted to Rs. 44,000, the next was "grazing fees," which yielded Rs. 30,700. The price of firewood was raised, owing to the increased price of labour, by 20 per cent., except when intended for steam navigation. The price of rafters in the forests near a market was raised 25 per cent.

Mr. Dalzell thinks the appropriation of forest land for purposes of cultivation will not benefit the revenue in the slightest degree, but will gradually lead to the most serious consequences both as regards climate, the interests of agriculture, the progress of commerce, and the general prosperity of the province. In these views the Government concur. Sind is a thinly inhabited country and no good plea for regarding the existence of forests as a nuisance can possibly exist. The indiscreet destruction of the forests of any country is apt to bring upon future generations three calamities, the want of fuel, the want of water and the want of timber. These three things are peculiarly necessary to Sind considering all the projected improvements for internal navigation. Every steamer on the Indus consumes, while under steam, one ton of fuel per hour. Although it would be too hardy an assertion to say that the existence of forests in Sind causes any increase in the fall of rain, as they certainly do on the summits and slopes of mountains, yet in Sind not only is the rain that falls economised and prevented from rapid evaporation, but the water of inundation also, which sinks deep into the ground, is being continually pumped up from great depths by the roots of the trees, and exhaled by the leaves, thus actually moistening the neighbouring atmosphere in the driest weather, and benefiting the crops of the neighbouring fields, without the ignorant Zemindar, who considers forests a nuisance, being aware of the blessing. In passing through a tamarisk jungle early in the morning, even in the driest weather, the whole of the foliage is found dripping—not from dew, but the water of exhalation brought up from great depths by the vital processes of vegetation; the whole of this passes into watery

vapour in a few hours. Clear away the forest, and the neighbouring fields are exposed to the violence of parching winds, and liable to be covered with drifting sand, while the cattle of the cultivator find no grazing and no shelter from the scorching heat. Looking at the question in another point of view, it has been found, that forests and plantations in England yield in the long run a much higher rental than if the ground on which they stand had been given up for cultivation. Land under wood in Great Britain will at the end of sixty years, under good management, pay the proprietor nearly three times the sum that he would have received from any other crop upon the same land. Even in Sind those forests which are tolerably near to a market will bear comparison in point of profit with some of the most favoured Zillahs of the province.

To take a fair example; a certain district in the valley of the Indus contains 224,586 beegas, of which 165,008 are culturable and 42,601 or one-fifth, actually cultivated in 1858-59. The revenue of this district was in that year Rs. 32,240, or deducting charges Rs. 29,000 which is equal to *two annas* per beega. The forest of Oonerpoor contains 18,000 beegas, yielding after deduction of all expenses of establishment, &c. a nett profit of Rs. 4,500, or *four annas* per beega. The forest of Meeanee yields the same. In their Resolution on the Report Government say that they fully recognise the importance and advantages arising from the conservation of the forests of this country.

SURVEY OF THE DERAH GHAZEE KHAN DISTRICT.

1859.

THIS report was submitted to Government on 1st October 1860 by Captain H. C. Johnstone. The survey was commenced on 1st December 1855 and completed on 30th September 1859. The expenditure, including contingent bills, amounted to Rs. 1,32,307-6-8. The area of the district is 6531 square miles. During the four years of survey, foreign territory and portions of districts adjoining Derah Ghazee Khan were mapped amounting to 3740 miles, so that the total area completed was 10,271 square miles. The rate of cost of the survey was Rs. 12-14-1 and 1-5th per square mile; or taking the professional survey only Rs. 11-9-4½ per square mile. The population of the district by the last census was 2,38,964 of whom one-sixth were Hindoos, principally bunniahs and tillers of the soil.

Assessment.—The assessment was very light. The whole revenue of the district was Rupees 3,80,000, of which about Rupees 3,60,000 were from land tax. One rupee and eight annas per acre was about the average tax on land irrigated by wells and canals, and one rupee on that dependent on rain. The average produce per acre may be fairly stated as follows:—

Maunds wheat,	valued at	Rupees	14
Seers, Indigo, ...	...	...	50
Maunds, cotton,	...	...	24
„ Bajra,	...	...	12

The Wheat and Bajra crops are the most certain to succeed. Both indigo and cotton are more liable to fail. Throughout the country the people were happy and contented under the Government that rules them.

Climate.—The climate though in many respects disagreeable, is upon the whole favourable to health. During November, December, January and February the weather is cold and bracing, but after that the heat increases, and by June becomes terrific. The regular hot winds of the North Western Provinces are unknown. A regular rainy season is unknown. During the hot season the central tracts become dried up. The land near the Indus is fertilised by its periodical floods.

Water.—The want of water in this district is severely felt. At all the frontier out-posts wells have been dug to a depth of 150 feet and more; in three-fourths of them the water is bitter and salt.

The Belooches.—These people are of a warlike and roving disposition. They used to despise trade, and at one time the cultivation in the district was not sufficient for the wants of the inhabitants. Now, however, necessity compels them to cultivate the soil. Indigo was once extensively grown but its culture is almost entirely abandoned. Cotton cultivation is on the increase but its quality is inferior. Any innovation in the mode of raising any crop is strongly objected to by the Belooch. Potatoes have been tried but were not successful, owing to the laziness of the people. Dates are largely produced and, as they are taxed, afford the Government a revenue of about Rs. 6000. The imports are considerable, being chiefly sugar, metals, Buhawulpoor silks and cloths, and English piece goods. A few fairs are held, at places of pilgrimage chiefly. That at Sukee Surwar is the largest; as many as fifty thousand people have been known to frequent it, but the trading is insignificant. Before annexation the state of frontier society both among the hill and plain tribes was barbarous in the extreme; blood feuds existed both between clans and individuals through-

out the length and breadth of the land; robberies and murders were rife. After annexation, among our own subjects in the plains, the system of taking the law into their own hands was at once put down. Good government and first rate officers at the head of the district have had their share in quieting the tribes. Now plundering on the frontier is rare. The fear of jail has had its full effect in repressing crime. Confinement to a Belooch is nearly death. The Belooch possesses some estimable qualities, and in many respects presents a favourable contrast to the Puttan. His oath can generally be depended on, his devotion to his chief is strong, the chief's pledged word is binding on the whole clan. They seem to look upon sickness as a womanly weakness, and sometimes will not give in to it, till unable to move about. To medical treatment from a European however they submit with a tolerable grace. They have submitted to vaccination to some extent. In one year 123 children were successfully operated on.

The report contains information on the tribes of the district and other subjects, the substance of which will be found in the memorandum on this District at page 293, Volume IV. of the *Annals.*

THE NATIVE PRESS IN BENGAL.

Bengal Records, No. XXXII.

1858.

A report on the state of the Vernacular Press in Bengal is submitted to Government by the Reverend J. Long. In 1853 returns of the Native Press were drawn up by the same gentleman, but the present report embraces a much wider field and includes statistical information to 1858.

Within the last quarter of a century the number of Bengali books printed and sold has not been less than 8,000,000, while during half a century more than 1800 distinct works, either original or translations from Sanskrit, English and Persian, have been produced.

Not only has the number of books printed in the vernacular rapidly increased from year to year, but their quality has materially improved. In 1820 there were 30 Bengali books published, of which 5 were on Krishna, 2 on Vishnu, 4 on Doorga, 3 tales, 5 obscene, and the rest on dreams, music, astrology, medicine, &c. From 1822 to 1826 the books that appeared were, with three exceptions, on mythology or fiction. In 1850 the tide turned in favour of useful works. In 1852 there were published 50 new works and among them such books as the Life of Clive, Robinson Crusoe, Natural History, Natural

Theology, Life of Galileo, &c., and every year the standard of books was higher till those published in 1857 include works on Biography, Science, Travel, Law, and every liberal subject. The books printed for sale in Calcutta during the year 1857 were of the following classes:—

	No. of Books.	*No. of Copies.*
Almanacs	19	1,36,000
Biography and History ...	15	20,150
Christian	8	9,550
Dramatic	8	5,250
Educational	46	1,45,300
Erotic	13	14,250
Fiction	28	33,050
Law	5	4,000
Miscellaneous	12	18,370
Mythology and Hinduism	85	96,150
Moral Tales and Ethics ...	19	39,700
Mussulman Bengali ...	23	24,600
Natural Science ...	9	12,250
Newspapers	6	2,950
Periodicals	12	8,000
Sanskrit—Bengali ...	14	15,000
Total ...	322	5,71,670

It will be seen that the number of copies of books printed for sale in Calcutta in 1857 was 5,71,670. In 1853 it was only 3,03,275. These returns must be far within the mark, as it is difficult to get accurate information from the natives on such a subject. This difficulty is still greater in the case of native newspapers. Only about 3 per cent. of the rural population of Bengal can read intelligently. According to the proportion of books hitherto printed, Mr. Long calculates that if the masses were educated 50,00,000 Bengali volumes would be published annually.

The mode in which Bengali Books are sold is thus described. "Few Bengali books are sold in European shops. A person may be twenty years in Calcutta, and yet scarcely know that any Bengali books are printed by Bengalis themselves. He must visit the native part of the town and the Chitpoor road, their Paternoster Row, to gain any information on this point. The Native presses are generally in by-lanes with little outside to attract, yet they ply a busy trade. Of late several educated natives have opened shops for the sale of Bengali works, and we know the case of one man who realizes Rupees 500 per month profit, but the usual mode of sale is by *hawkers*, of whom

there are more than 200 in connection with the Calcutta presses. These men may be seen going through the native part of Calcutta and the adjacent towns with a pyramid of books on their head. They buy the books themselves at wholesale price, and often sell them at a distance at double the price, which brings them in probably 6 or 8 Rupees monthly, though we know of one man who realizes by book-hawking more than 100 Rupees monthly. This system is an example to Europeans. The Natives find the best advertisement for a Bengali book is a *living agent* who shows *the book itself.* Various valuable Bengali works have been printed, which have rotted on a book-seller's shelves, simply because the agency of hawkers was not brought into action." The Bengalis are fond of listening to books read aloud. Allowing on an average 10 hearers or readers to each book the 6,00,000 books published would have 20,00,000 hearers or readers. The number of Bengali authors whose names are ascertained is about 700. They belong chiefly to the Brahman and Kyast castes, but occasionally they are Sudras. It is singular that in the Tamil the chief writers are Sudras. East Indians have done scarcely anything in Bengali composition.

The report then proceeds to describe the various classes of books that are issued.

Almanacs are the most numerous, and, to a Bengali, the most useful works. Without his almanac he cannot determine the auspicious days for marrying, for building a house, for beginning a journey or calculating the malignity and duration of a fever. A good almanac may be purchased for 2 annas. The number published annually is probably over two lakhs. A taste for history is not natural to Bengalis but it is springing up. The number of Christian books, exclusive of books and tracts distributed gratuitously chiefly by the Bible and Tract Societies, does not exceed 2 per cent. of the number of books printed for sale. Dramatic works are popular. In Calcutta and its neighbourhood the educated natives patronise Dramas composed by Pundits which, in popular language and sometimes with the sarcasm of a Molière, condemn caste and polygamy. Shakespear's *Merchant of Venice* is one of the few translations of English plays in favour. The spread of education has led to an increased demand for educational works of which 1,45,300 copies were printed for sale in 1857. A taste for obscene publications still prevails to a considerable extent, but the Act against selling or exposing them to view is effecting what a regard to morality could not do. The two great ethical books in Bengali are the *Hitopodesh* and *Chanak's Slokes.* Mr. Long says the former has been translated into more languages than any other book with

the exception of the Bible, Arabian Nights and Pilgrim's Progress. Works of fiction are highly popular but the number printed does not render this fact very evident, as the works called "mythological" would in many instances be more appropriately classed under the head "Fiction." There are more than 100 Bengali works on legal subjects; all treat of Law as a matter of fact, but none dwell on it as a science. Medical works are very common. One called *Chikitsarnab* has been sold to the extent of 1,20,000 copies. Among special subjects which have occupied the press may be mentioned a controversy that raged years ago on the right of the Khaistas to wear the Brahminical thread; it called forth some 12 or 20 volumes on both sides.

Newspapers.—The number in circulation is small compared with that of other publications, but their influence is great extending, at an average of 10 readers for each paper, to 30,000 persons. The oldest paper is the *Chandrika*, established in 1820 as the advocate of widow-burning and the old Hindu *regime*. The *Prabhakar* is a daily journal begun in 1830, moderate in its tone and distinguished for the elegance if its style and of its poetry. In 1838 the *Purnachundroday* and the *Bháskar* were started. The latter has long been considered *the* native paper of Calcutta. The *Kaumudi* was started in 1819 by Rammohun Roy in opposition to the *Chandrika*. In Benares Bengali papers are published. The Bengalis there live by themselves and use their own language. In 1840 a weekly publication of great value in making the natives acquainted with the proceedings of Government appeared, the *Bengali Government Gazette*: it contained the Acts of the Legislative Council, the Circular Orders of the Sudder Dewani, Government notices, &c. &c. It has a large circulation, and is of great value as a medium of communication between Government and the people.

Periodicals.—The oldest existing periodical is the *Tatvabodhini Patrika;* it was established in 1843, and is published monthly. The *Vividártha Sangraha* or Bengali Penny Magazine, was commenced in 1851, by the Vernacular Literature Society. The circulation is about 700 monthly. The *Krishi Sangraha* is the organ of the Agri-Horticultural Society. The *Arunadoy* is conducted by the Christian Tract Society and has a bi-monthly circulation of 8 or 9 hundred. The *Bháratbarshiya Sabhá Bigyápini* is the organ of the British Indian Association which has hitherto been the representative of the Native community to the British public, but they now feel that their own views must be made known to the masses and hence the issue of this monthly organ. The *Kalikata Patriká* has been recently established.

Pictures and Songs.—Pictures printed or painted, illustrating the deeds of the gods and goddesses, are sold by tens of thousands at two pice each. The Bengali songs do not inculcate the love of wine, or war, but are devoted to Venus and the popular deities; they are filthy and polluting.

Sanskrit.—The study of Sanskrit in connection with the Hindu religion is declining, but more attention is paid to it as a philological instrument, and as a means of enriching the vernacular with terms and illustrations.

The foregoing are the returns of Calcutta only, but those of the Mofussil press in Bengal are insignificant in comparison.

Agencies Promoting Vernacular Literature.—In the first rank among these must be placed the Government Normal Vernacular Schools of Calcutta, Hooghly and Dacca, which train about 300 pupils to be Vernacular Teachers. The Vernacular Literature Society is another agency of great importance. This Society was founded in 1851 to publish translations of such works as are not included in the design of the Tract or Christian Knowledge Societies on the one hand or of the School Book and Asiatic Societies on the other. Up to May 1857 the Society published translations of 17 works. The School Book Society was founded in 1817 and has always been well supported. Vernacular libraries exist in many towns of the Mofussil and their still further extension is highly desirable. The Calcutta Bible Society has since its commencement circulated in whole or in part more than 10,00,000 copies of Bengali Scriptures. For the sake of comparison Mr. Long mentions that in Agra the Vernacular Press published in 1858 no less than 7,00,000 copies of works. The total number of copies of native newspapers struck off in the North West in the year 1854 was 1,62,408.

PRISONS IN THE MADRAS PRESIDENCY.

1858-59.

On the 25th of January 1860 Mr. Rohde, Inspector General of Jails, Madras, submits his report for the official year 1858-59 accompanied by the report of the Director General, Medical Department, on sickness and mortality in the Madras jails. During the year he visited the jails of Paulghat, Coimbatore, Salem, Chittoor, Madura, Tinnevelly, Paumben, the Prisons in the Ceded Districts and Kurnool, and those of the Northern Circars, Nellore, Guntoor and Chingleput. The numbers of persons sentenced to imprisonment by the various Courts during 1858 will be seen in the following table:

Statement showing the number of Persons sentenced to imprisonment, by the several Courts, during the year 1858.

	Imprisonment not exceeding 1 month.	Do. above 1 month and not exceeding 6 months.	Do. above 6 months and not exceeding 1 year.	Do. above 1 year and not exceeding 2 years.	Do above 2 years and not exceeding 3 years.	Do. above 3 years and not exceeding 4 years.	Do. above 4 years and not exceeding 5 years.	Do. above 5 years and not exceeding 6 years.	Do. above 6 years and not exceeding 7 years.	Do. above 7 years and not exceeding 8 years.	Do. above 8 years and not exceeding 9 years.	Do. above 9 years and not exceeding 10 years.	Do. above 10 years and not exceeding 11 years.	Do. above 11 years and not exceeding 12 years.	Do. above 12 years and not exceeding 13 years.	Do. above 13 years and not exceeding 14 years.	Imprisonment for life.
By Foujdari Adalat	...	...	...	...	...	...	...	...	53	...	...	...	...	...	...	54	2
By Session Judge	7	60	122	121	86	121	87	7	253	51	...	56	...	...	...	311	...
Magistrates, Joint Magistrates and Assistant Magistrates,	504	406	3	...	...	...	...	...	...	...	...	...	...	....	...	...	...
Subordinate Judges, Principal Sudder Ameens and Sudder Ameens	101	841	636	204	...	...	...	...	...	...	...	...	...	...	...	...	...
District Police	5,827	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...
Village Police	8,439	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	14,878	1,307	761	325	86	121	87	7	306	51	...	56	...	...	...	365	2

The average strength of the prisoners was 5,980; the aggregate strength being 13,960; of these 448 died in jail during the year, being 7·3 per cent. on the average strength and 3·1 per cent. on the aggregate strength. Although the number of prisoners passing in and out of jail represented by the aggregate strength, or, the total number subjected to the atmosphere of the jail, is of importance in investigation, it may for present purposes be sufficient to draw deductions in comparison with the average strength alone. It will be seen that of 440 deaths occurring in 32 prisons, no fewer than 277 occurred in seven of the least healthy prisons; the mortality to average strength being 10 per cent. at Cuddalore, 8 at Coimbatore, 9 at Combaconum, 10·6 at Madura, 37·2 at Salem, 15 at Cochin, 12·5 at Tranquebar (this, however, is rather chargeable to Combaconum), 19·4 at Itchapore, 11·6 at Cuddapah, and 21 per cent. at Mangalore; the mortality at Calicut was last year only 6·7 per cent.

Of the 6,049 prisoners in the various jails on 30th April 1859, 5,609 were convicts, 400 persons confined in default of security to be furnished, and 40 were state prisoners. There were 874 prisoners confined for debt, of whom 9 only were confined for periods exceeding one year and all for private debts. The maintenance of the destitute children of convicts cost Rs. 161-10. The following is an abstract of the expenses incurred during the year for all the Jails:—

	Rs.	As.	P.
Rent and repairs of buildings, ...	2,945	14	3
Dieting, ...	1,91,690	11	10¾
Clothing and Bedding, ...	1,205	14	8
Executions, ...	310	1	9
Purchase and repair of tools, ...	5,232	14	7¾
Fetters &c., ...	2,093	5	8
Conveyance and payments to released prisoners, ...	952	8	3
Rewards for the re-apprehension of escaped convicts, ...	300	0	0
Lighting, ...	5,369	8	7¼
Maintenance of convicts' children, ...	161	10	1¾
Furniture, ...	481	2	4
Batta to peons on transit, ...	101	10	7
Fixed guards, ...	56,615	11	4
Extra guards, ...	99,100	13	11
Stationery, ...	139	4	3
Medical requisition, ...	590	2	2
Gratuities to Peons, ...	102	0	0
Sundries, ...	3,124	6	0¼
Arms &c., ...	1,142	2	8
Manufactures, ...	4,532	8	5
Total Rupees, ...	3,86,992	7	7¼

There were 29 escapes during the year, of which 24 were from parties outside the walls and only 5 from the jails or buildings used as jails. Of the 24 cases of escape outside the jails, 10 were due to misconduct on the part of the jailer at Madura who sent out prisoners on long sentence in a small gang negligently guarded.

Buildings.—Considerable improvements were carried out in the jails of Rajahmundry and Masulipatam by affording means of separating the classes. The hospital at Rajahmundry was much improved, and a new ward for European seamen was built. To the other jails nothing was done that could with propriety be avoided. At Combaconum attempts were made to remedy whatever might be supposed to be the cause of the extraordinary mortality in the jail. Many of the jails were in a very unsafe condition, particularly those at Chingleput, Chicacole, Nellore, Salem, Cuddapah, and Honawar. The prisons of Madura, Coimbatore and Combaconum seem irremediably unhealthy.

The Penitentiary.—Cholera of a severe and fatal type frequently breaks out in this institution. The space allowed prisoners was formerly too small and the ventilation was defective but both these faults have been remedied. The practice of placing earthen vessels for the use of prisoners within their cells was very objectionable and on the outbreak of Cholera in January 1859 they were removed outside; this change operated favourably. The average strength of the prisoners was 266, and the number committed to Jail 1442; 1154 were discharged, time-expired. The number incarcerated twice was 224; three times 76; four times 46; five times 30; six times 32 and so on. The various classes imprisoned were

European Seamen	167
Native Seamen or Lascars	90
European and East Indian males ...	25
„ „ females ...	6
Native males	996
„ females	138
Night cases	860

With the exception of cholera no epidemic prevailed. One patient died of small pox, which disease he had brought with him into the Jail, but no other case occurred.

Her Majesty's Jail.—The inmates of this institution enjoyed very good health during the year. No epidemic appeared, nor was there a single death. There remained from the previous

year 38 prisoners; there were lodged in the Jail during the year 634 ; and discharged 623.

Mofussil Jails.—In these there was a higher ratio of sickness and mortality than the average of the preceding 14 years. The percentage of admissions to strength from 1844 to 1857 was 109·4 ; in 1858-59 it was 119·7. The percentage of deaths to strength from 1844 to 1857 was 6·2 ; in 1858-59 it was 7·3. Though in the army the death-rate is taken on the average strength the same principle is not fair when applied to the fluctuating population of Jails. Much of the fatal sickness of prisoners occurs in the newly incarcerated, and men in confinement for short periods of three or six months are just as liable to fatal sickness as those confined for more lengthened periods. The percentage of admissions to aggregate strength of convicted prisoners in 1858-59 was 51·2 against 54·5 the average of 1844 to 1857. The percentage of deaths was 3·1 against 3·09. Neither of the above two statements show accurately the death rate per annum of the jail population—the first is too high and the second too low ; but for all practical purposes the two rates considered together are sufficient to point out the healthy and unhealthy jails. Much of the unhealthiness of certain jails depends more upon the insalubrity of the districts from which the prisoners are furnished than upon supposed sanitary defects in the buildings. The healthiest jails in the Presidency, those at Guntoor, Bellary and Honore, are about the worst ventilated and most ill-constructed.

Diet.—The Director General is of opinion that prisoners in jail should always receive the kind of grain to which they are accustomed, and that a small allowance of animal food should be given three times a week to all sickly prisoners. The proportion of rice and other grains in the present dietary scale is perhaps greater than necessary. Fresh vegetables should be used, where procurable, deducting a small quantity of the grain in use where these are regularly given.

Labour of Prisoners.—23,495 were employed as smiths, 8,489 as carpenters, 53,285 in beating grain, 40,298 as cooks, 24,371 as hospital attendants, 41,384 as sweepers, 76,133 in washing and other duties, 22,043 in court, 5,884 in the Collector's cutcherry, 1,766 in the civil hospital ; 9,88,746 in the repair of public roads, earned Rs. 99,207-15 on public works and buildings, 1,91,079 were employed as scavengers, 97,531, in brick making Rs. 8,658, in stone cutting Rs. 49,942, in weaving 18,011 in

gunny weaving 1,753, in rope making 22,441, in paper making 16,250, in burning lime 2,453 and in book-binding 356.

Expenditure.—The total was Rs. 3,86,992-7-7¼.

EXTERNAL COMMERCE OF BENGAL.

1859-60.

THE report is signed by Ashley Eden, Officiating Junior Secretary of the Board of Revenue.

Total Comparative Value:—

	IMPORTS.	EXPORTS.	TOTAL.
1856-57, ...	15,43,22,170	15,74,41,178	31,17,63,348
1857-58, ...	16,80,61,961	16,66,30,808	33,46,92,769
1858-59, ...	17,50,70,869	18,10,98,093	35,61,68,962
Total Rs. ...	49,74,55,000	50,51,70,079	1,00,26,25,079
3 years' average, ...	16,58,18,333⅓	16,83,90,026⅓	33,42,08,359⅔
1859-60, ...	23,89,69,414	15,05,97,714	38,95,67,128
Increase, ...	7,31,51,080⅔	... ...	5,53,58,768⅓
Decrease, ...	... ...	1,78,05,312⅓	... ..

Of the total imports Rs. 11,36,38,233 were from Great Britain against 9,02,46,263 the previous year. Of the total exports Rs. 4,67,90,272 were to Great Britain against Rs. 4,88,00,998 the previous year.

The value of the Imports (Treasure excepted) from other countries, during the same period, was Rupees 2,23,57,598 against Rupees 2,09,45,068 in 1858-59; of Exports to other countries Rupees 9,30,43,581 against Rupees 10,83,11,003 in 1858-59. The increase in imports was confined to those from the United Kingdom, Bombay, France and China. The principal items of increase were :—

BEADS, ...	United Kingdom, ...	Rs.	4,64,939
	Bombay, ...	„	65,465
	China, ...	„	36,158

Cotton Twist, ...	United Kingdom, ...	Rs.	19,24,206
	France, ...	„	19,068
	Bombay, ...	„	3,955
Cotton Piece Goods,	United Kingdom, ...	„	1,29,39,128
	China, ...	„	39,309
	France, ...	„	46,633
	Bombay, ...	„	1,08,824
Machinery, ...	United Kingdom, ...	„	31,90,280
Malt Liquor, ...	United Kingdom, ...	„	9,47,867
Metals, ...	United Kingdom, ...	„	51,33,330
	China, ...	„	5,51,400
	France, ...	„	35,903
	Bombay, ...	„	1,02,439
Silk Goods, ...	United Kingdom, ...	„	1,87,745
	China, ...	„	2,56,652
	France, ...	„	1,81,540
	Bombay, ...	„	25,514

Exclusive of treasure there was a decrease in the value of exports of no less than Rs. 1,72,78,148, of which the principal items were :—

Indigo, ...	America, North, ...	Rs.	7,81,642
	Arabian and Persian Gulfs,	„	4,26,574
	France, ...	„	12,42,500
	Hamburgh, ...	„	1,14,107
	Bombay, ...	„	2,88,170
Grain, ...	America, North, ...	„	1,50,370
	Ceylon, ...	„	9,79,288
	China, ...	„	3,58,483
	New South Wales, ...	„	4,35,889
	San Francisco, ...	„	2,11,511
	Madras, ...	„	1,57,580
Gunny & Gunny Bags,	America, North, ...	„	4,76,351
	Bombay, ...	„	8,83,781
	Rangoon, ...	„	2,60,449
Hides, ...	United Kingdom, ...	„	82,050
	America, North, ...	„	5,93,102
	France, ...	„	2,43,593
Jute, ...	United Kingdom, ...	„	19,10,443
	America, North, ...	„	2,20,370
	France, ...	„	2,18,470
Opium, (Behar,) ...	Ceylon, ...	„	57,750
	China, ...	„	3,03,90,312
	Java, ...	„	32,175
Seeds, ...	United Kingdom, ...	„	2,94,276
	America, North, ...	„	6,34,690
	America, South, ...	„	1,37,215
	France, ...	„	1,51,506

SUGAR,	United Kingdom,	...	Rs.	39,96,314
	America, North,	...	„	1,01,090
	New South Wales,	...	„	2,42,325
	Bombay, ...	...	„	8,95,947

United Kingdom.

Total, Exports from Calcutta in 1858-59,	...	Rs.	4,46,94,464
Ditto ditto 1859-60, ...	...	„	4,20,26,523
Decrease,	...	Rs.	26,67,941

The deficiency was principally from the port of Calcutta and was owing, so far as the United Kingdom is concerned, to Indigo and Opium, the crop of the latter being one of the shortest for a long series of years. The rise in the price of Rice, and the high price of Benares Sugar, account for the decrease in these articles.

Duty Collections :—

1856-57, ...	Imports, ...	Rs.	1,22,51,670		
	Exports, ...	„	17,50,313		
					1,40,01,983
1857-58, ...	Imports, ...	„	1,10,55,698		
	Exports, ...	„	15,60,247		
					1,26,15,945
1858-59,	Imports, ...	„	1,39,83,806		
	Exports, ...	„	17,10,450		
					1,56,94,256
	Total,	...	Rs.		4,23,12,184
	3 years' average,	...	Rs.		1,41,04,061⅓
1859-60, ...	Imports, ...	Rs.	1,81,35,037		
	Exports, ...	„	22,32,400		
					2,03,67,437
	Increase, ...	...	Rs.		62,63,375⅔

This increase, chiefly from Imports, was partly attributable to the enhanced rates of duty chargeable under Act. VII. of 1859 and Act X. of 1860, partly to large importations made under the expectation that the high prices of 1857 and 1858 would continue, and to some extent also to the steadily increasing demand for European goods. Act VII. of 1859, which came into operation on 14th March, raised the duty on all imported goods from 5 and 10 per cent. ad valorem, to 10 and 20 per cent.; while on spirits the duty was raised from 1-8 to 3 Rupees

per Imperial gallon; on Wines and Liqueurs from 1 to 2 Rupees per Imperial gallon, and on Porter, Ale and other fermented Liquors, from 5 per cent. to 4 annas per Imperial gallon. These rates were partly modified on 18th February 1860, the date of the passing of Act. X. of 1860, which reduced the 20 per cent. rate (except as regards Cotton Twist and Yarn and Tobacco,) to 10 per cent. Wool, Raw-Hides, Flax, &c., &c., being allowed free Import and Export. Cotton Twist and Yarn were classed as "un-enumerated" articles at a duty of 10 in place of 5 per cent. The duty on Tobacco was altered from 20 per cent. to 8 annas for unmanufactured, and 1 Rupee for manufactured, per seer; and the duty (Export) on Saltpetre was at the same time raised from 3 per cent. to 2 Rupees per maund.

The following table gives a comparison of the import of Cotton Yarn and Tobacco and the export of Saltpetre during the two months of the change of duties:—

	Imports in March and April 1858.			Imports in March and April 1859.			Imports in March and April 1860.		
	Value.	Rate of duty.	Duty.	Value.	Rate of duty.	Duty.	Value.	Rate of duty.	Duty.
	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.
Cotton Yarn, ...	16,82,980	3½ per ct.	58,904	17,40,118	5 per ct.	87,006	9,56,420		95,642
Tobacco, ...	1,74,039	5 „	8,702	79,437	20 „	15,887	27,896 (Mds. 374-12)	10 pr. ct. & 8 as. & 1 Re. pr. seer.	12,658
Total, Rs.	18,57,019	...	67,606	18,19,555	...	1,02,893	9,84,316	.....	1,08,300
	Exports in March and April 1858.			Exports in March and April 1859.			Exports in March and April 1860.		
Salt-petre, ... Rs.	4,02,187	3 pr. ct.	12,066	5,62,515	3 pr. ct.	16,886	8,52,714 (Mds. 86,645)	2 Rs. pr. 1 md.	1,73,290

Bullion and Coin.—The total Import of Bullion and Coin in 1859-60, on account of private trade, amounted to Rupees 8,00,35,547, the Exports to Rupees 1,01,77,861, showing an increase of Rupees 1,69,32,409, and Rupees 75,16,662, respectively. The Imports and Exports on account of the State in 1859-60 (inclusive of Treasure,) are quoted at Rupees 2,72,44,398 and Rupees 5,86,000, showing an increase of Rupees 2,11,29,798 and a decrease of Rupees 2,07,38,893, respectively, as compared with the Imports and Exports in 1858-59.

Arrivals and Departures of Ships :—

	1858-59.		1859-60.		Increase.		Decrease.	
	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.
Arrivals.								
Calcutta, ...	950	6,72,140	896	6,16,576	...	...	54	55,564
Chittagong, ..	79	10,775	77	9,920	...	...	2	855
Balasore, ...	18	2,285	9	823	...	...	9	1,462
Arracan, ...	209	99,691	251	82,549	42	...	...	17,142
Tenasserim,...	255	1,17,405	359	93,561	104	...	...	23,844
Total, ...	1,511	9,02,296	1,592	8,03,429	146	...	65	98,867
			Deduct Decrease,		65			...
			Increase in Ships,		81	Decrease in Tonnage,		98,867
Departures.								
Calcutta, ...	960	6,76,196	1,018	6,61,735	58	...	...	14,461
Chittagong,...	32	4,141	60	8,896	28	4,755	...	...
Balasore, ...	18	2,285	11	969	...	...	7	1,316
Arracan,... ...	245	96,647	252	83,866	7	...	...	12,781
Tenasserim,...	269	1,08,656	342	90,901	73	...	...	17,755
Total, ...	1,524	8,87,925	1,683	8,46,367	166	4,755	7	46,313
			Decuct Decrease,		7			4,755
			Increase in Ships,		159	Decrease in Tonnage,		41,558

Ships began to resort to the ports along the coast for grain and seeds. Several ships of heavy burthen went into False Point and Pooree for cargoes.

General.—Till last year the practice was to exclude from the returns of the Report on the External Commerce of Bengal the inter-port or Coasting trade. In the present Report the internal trade between Calcutta, Balasore and Tenasserim (except Moulmein) are included. Henceforth the inter-port trade will be always given, that the real progress of trade throughout Bengal may be more easy of comparison. The total collections of customs duties were Rs. 2,09,35,938; the total charges were Rs. 5,68,501, leaving a net Revenue of Rs. 2,03,67,437. The proportion of charges to collections was therefore only $2\frac{5}{7}$ per cent. This, it is believed, is less than in any country in the world. In England the charges have until very lately been 4 per cent.: for the past year, however, they are said to have been $2\frac{1}{2}$ per cent., but on a very much larger Revenue; France 16 per cent. and America $7\frac{3}{4}$ per cent.

Comparative Statement of the External Commerce of Bengal in 1858-59 *and* 1859-60.

		Private Trade.			Crown's Shipments.			Grand Total.
		Merchandise.	Treasure.	Total.	Merchandise.	Treasure.	Total.	
Imports,	Calcutta, ...	12,91,25,699	7,86,72,699	20,77,98,398	43,06,362	2,29,38,036	2,72,44,398	23,50,42,796
	Chittagong, ...	48,442	76,200	1,24,642	... ...	... ...	.. ..	1,24,642
	Balasore, ...	2,37,277	... ...	2,37,277	... ...	... ...	... ...	2,37,277
	Arracan, ...	1,59,999	1,17,226	2,77,225	... ...	... ...	... ...	2,77,225
	Tenasserim Provinces,	21,18,052	11,69,422	32,87,474	... ...	... ...	... ...	32,87,474
Imports in 1859-60, ...		13,16,89,469	8,00,35,547	21,17,25,016	43,06,362	2,29,38,036	2,72,44,398	23,89,69,414
Ditto in 1858-59, ...		10,58,53,131	6,31,03,138	16,89,56,269	53,38,200	7,76,400	61,14,600	17,50,70,869
Increase, ...		2,58,36,338	1,69,32,409	4,27,68,747	... ...	2,21,61,636	2,11,29,798	6,38,98,545
Decrease, ...		... ...	... ...	... ...	10,31,838	... ...	... ...	... ...
Exports,	Calcutta, ...	13,19,50,566	1,00,44,791	14,19,95,357	... ...	5,86,000	5,86,000	14,25,81,357
	Chittagong, ...	3,68,043	... ...	3,68,043	... ...	... ...	... ...	3,68,043
	Balasore, ...	4,94,843	... ...	4,94,843	... ...	... ...	... ...	4,94,843
	Arracan, ...	27,50,843	... ...	27,50,843	... ...	... ...	... ...	27,50,843
	Tenasserim Provinces,	42,69,558	1,33,070	44,02,628	... ...	... ...	... ...	44,02,628
Exports in 1859-60, ...		13,98,33,853	1,01,77,861	15,00,11,714	... ...	5,86,000	5,86,000	15,05,97,714
Ditto in 1858-59, ...		15,71,12,001	26,61,199	15,97,73,200	... ...	2,13,24,893	2,13,24,893	18,10,98,093
Increase, ...		... ...	75,16,662	... ...	... ...	... ...	... ...	... ...
Decrease, ...		1,72,78,148	... ...	97,61,486	... ...	2,07,38,893	2,07,38,893	3,05,00,379
Imports and exports in 1859-60,		27,15,23,322	9,02,13,408	36,17,36,730	43,06,362	2,35,24,036	2,78,30,398	38,95,67,128
Ditto Ditto, in 1858-59,		26,29,65,132	6,57,64,337	32,87,29,469	53,38,200	2,21,01,293	2,74,39,493	35,61,68,962
Increase, ...		85,58,190	2,44,49,071	3,30,07,261	... ...	14,22,743	3,90,905	3,33,98,166
Decrease, ...		... ...	... ...	... ...	10,31,838	... ...	... ...	... ...
Increase in 1859-60, Rupees								3,33,91,866

General Comparative Statement of the Trade with the several Ports and places having Commercial Intercourse with the Ports of Calcutta, Chittagong, Balasore, Arracan and the Tenasserim Provinces, in 1858-59 *and* 1859-60, *shewing the fluctuations in the value of the Trade of each Port.*

I.—CALCUTTA.

IMPORTS.	1858-59.	1859-60.	INCREASE.	DECREASE.
Foreign or External Ports.				
United Kingdom, ...	104109622	157117629	53008097	...
Aden, ...	96951	32266	...	64685
America, North, ...	1138054	1231718	93664	...
Ditto, South, ...	46083	197500	151417	...
Antwerp, ...	59442	3304	...	56138
Arabian Gulf, ...	349599	434015	84416	...
Bourbon, ...	1035672	483953	...	551719
Cadiz, ...	28589	525	...	28064
Cape of Good Hope, ...	202212	296823	94611	...
Ceylon, ...	1731194	1081089	...	650105
China, { Hong-Kong,	16729959	7181360	...	9548599
China, { Other Ports,	8609138	2407499	...	6201639
Demerara, ...	...	316	316	...
France, ...	3956488	4518831	562343	...
Genoa, ...	16279	25948	9669	...
Hamburgh, ...	112331	106629	...	5702
Maldive Islands, ...	88231	170837	82606	...
Malta, ...	120352	314350	193998	...
Manilla, ...	27112	6409	...	20703
Mauritius, ...	1075657	1333171	257514	...
New South Wales, ..	1637968	5415942	3777974	...
Penang, Singapore and Malacca, ...	6331092	5015561	...	1315531
Persian Gulf, ...	555768	444945	....	110823
Sardinia, ...	...	479	479	...
Suez, ...	2786506	10167778	7381272	...
Sumatra, ...	26964	...	...	26964
Trieste, ...	4064	10170	6106	...
Total, Foreign Ports,	150875327	197999047	65704392	18580672

General Comparative Statement.—(Continued.)

I.—CALCUTTA.—(*Continued.*)

IMPORTS.	1858-59.	1859-60.	INCREASE.	DECREASE.
British Indian or Home Ports.				
Akyab, ...	...	46917	46917	...
Bimlipatam, ...	233001	174771	...	58230
Bombay, ...	4566642	2352603	...	2214039
Burgherry, ...	...	18370	18370	...
Calicut, ...	...	15224	15224	...
Cananore, ...	405748	481784	76036	...
Cardiff, ...	...	54160	54160	...
Cartapatam, ..	20300	...	...	20300
Cochin, ...	...	19193	19193	...
Coconada, ...	30649	37148	6499	...
Coringa, ...	91347	60229	...	31118
Kurlapatam, ...		23600	23600	...
Madras, ...	5856876	3156665	...	2700211
Martaban, ...	...	5420	5420	...
Masulipatam, ...	143093	148335	5242	...
Monsoorcotta, ...	21906	6800	...	15106
Moulmein, ...	...	1004615	1004615	...
Nagore, ...	4000	...	...	4000
Negapatam, ...	100	500	400	...
Pooree, ...	...	600	600	...
Rangoon, ...	1627247	1498646	...	128601
Tellicherry, ...	168746	110694	...	58052
Tuticorin, ...	...	138350	138350	...
Vizagapatam, ...	60016	53944	...	6072
Total, Home Ports,	13229671	9408568	1414626	5235729
Indian Ports not British.				
Alipee, ...	527344	371919	...	155425
Karakal, ...	480	...	...	480
Pondicherry, ...	848448	18864	...	829584
Total, Indian Ports not British, ...	1376272	390783	...	985489
Total, Calcutta, ...	165481270	207798398	67119018	24801890

108545

General Comparative Statement.—(Continued.)

I.—CALCUTTA.—(*Continued.*)

EXPORTS.	1858-59.	1859-60.	INCREASE.	DECREASE.
Foreign or External Ports.				
United Kingdom, ...	44694464	42026523	...	2667941
Aden, ...	127087	91873	...	35214
America, North, ...	12320585	9194005	...	3126580
Ditto, South, ...	183676	282421	98745	...
Arabian Gulf, ...	1673291	1549846	...	123445
Bourbon, ...	2287862	2335675	47813	...
Bremen, ...	2000	67500	65500	...
Cape of Good Hope, ...	432247	543738	111491	...
Ceylon, ...	2234070	3135102	901032	...
China, Hong-Kong,	6974519	27049488	20074969	...
China, Other Ports,	44734849	12173036	...	32561813
Demerara, ...	415755	1130846	715091	...
France, ...	6482416	4472997	...	2009419
Gibraltar, ...	...	76034	76034	...
Hamburgh, ...	311439	461776	150337	...
Java, ...	139794	64851	...	74943
Maldive Islands, ..	47811	85219	37408	...
Malta, ...	16219	6746	...	9473
Manilla, ...	1650	...	...	1650
Mauritius, ...	4459962	4362844	...	97118
New South Wales, ..	3106221	2544450	...	561771
Penang, Singapore and Malacca, ...	2158585	7964690	5806105	...
Persian Gulf, ..	789382	419829	...	369553
San Francisco, ...	253563	...	...	253563
St. Helena, ...	29614	55179	25565	...
Suez, ...	694232	844385	150153	...
Sumatra, ...	13302	23556	10254	...
Trinidad, ...	77807	273923	196116	...
Zanzibar, ...	21750	21540	...	210
Total, Foreign Ports,	134684152	121258072	28466613	41892693

General Comparative Statement.—(Continued.)

I.—CALCUTTA.—(*Concluded.*)

EXPORTS.	1858-59.	1859-60.	INCREASE.	DECREASE.
British Indian or Home Ports.				
Akyab, ...	...	3433961	3433961	...
Balasore, ...	...	62142	62142	...
Bassein, ...	2904	100	...	2804
Bimlipatam, ...	280021	779114	499093	...
Bombay, ...	8319130	6396312	...	1922818
Calicut, ...	43686	6882	...	36804
Cananore, ...	25980	...	...	25980
Cochin, ...	2120	6926	4806	...
Coconada, ...	31720	143807	112087	...
Colingapatam, ...	17862	2880	..	14982
Coringa, ...	91335	19180	...	72155
Cuttack, ...	...	2290	2290	...
Ganjam, ...	7498	16720	9222	...
Madras, ...	2851959	2621753	...	230206
Masulipatam, ...	103698	65948	...	37750
Monsoorcotta, ...	18703	33853	15150	...
Moulmein, ...	...	2351751	2351751	...
Negapatam, ..	80680	1000	...	79680
Pooree, ...	...	18622	18622	...
Rangoon, ...	5829143	4740665	...	1088478
Tellicherry, ...	76612	22905	...	53707
Vizagapatam, ...	40015	7235	...	32780
Total, Home Ports, ...	17823066	20734046	6509124	3598144
Indian Ports not British.				
Alipee, ...	21096	3239	...	17857
Total, Indian Ports not British, ...	21096	3239	...	17857
Total, Calcutta, ...	152528314	141995357	34975737	45508694

General Comparative Statement.—(Continued.)

II.—CHITTAGONG.

IMPORTS.	1858-59.	1859-60.	INCREASE.	DECREASE.
Foreign or External Ports.				
Ceylon, ...	25257	41757	16500	.....
Maldive Islands, ...	13332	4654	.....	8678
Penang and Singapore, ...	8643	1408	.....	7235
Total, Foreign Ports, ...	47232	47819	16500	15913
British Indian or Home Ports.				
Madras, ...	42295	76572	34277	.....
Rangoon, ...	14851	251	.....	14600
Total, Home Ports, ...	57146	76823	34277	14600
Total, Chittagong, ...	104378	124642	50777	30513

II.—CHITTAGONG.

EXPORTS.	1858-59.	1859-60.	INCREASE.	DECREASE.
Foreign or External Ports.				
Aden, ...	562	15390	14828	.....
Ceylon, ...	26727	18859	.....	7868
Maldive Islands, ...	28051	100073	72022	.....
Penang and Singapore, ...	2848	62461	59613	.....
Total, Foreign Ports, ...	58188	196783	146463	7868
British Indian or Home Ports.				
Madras, ...	5922	124284	118362	.....
Rangoon, ...	8527	36176	27649	.....
Bombay, ...	.....	10800	10800	.....
Total, Home Ports, ...	14449	171260	156811	.....
Total, Chittagong, ...	72637	368043	303274	7868

General Comparative Statement.—(Continued.)

III.—BALASORE.

IMPORTS.	1858-59.	1859-60.	INCREASE.	DECREASE.
Foreign or External Ports.				
Maldive Islands, ...	.....	2119	2119	.....
Total, Foreign Ports, ...	.....	2119	2119	.....
British Indian or Home Ports.				
Calcutta, ...	.....	232556	232556	.....
Madras, ...	3302	2602	.....	700
Total, Home Ports, ...	3302	235158	232556	700
Total, Balasore, ...	3302	237277	234675	700

III.—BALASORE.—(*Concluded.*)

EXPORTS.	1858-59.	1859-60.	INCREASE.	DECREASE.
Foreign or External Ports.				
Maldive Islands, ...	19815	12373	.....	7442
Total, Foreign Ports, ...	19815	12373	.....	7442
British Indian or Home Ports.				
Calcutta, ...	.....	467234	467234	.....
Calicut, ...	22224	12083	.....	10141
Madras, ...	44058	3153	.....	40905
Total, Home Ports, ...	66282	482470	467234	51046
Total, Balasore, ...	86097	494843	467234	58488

General Comparative Statement.—(Continued.)

IV.—ARRACAN.

IMPORTS.	1858-59.	1859-60.	INCREASE.	DECREASE.
Foreign or External Ports.				
United Kingdom, ...	31034	254	.. ...	30780
America, North, ...	37750	.....	.. ...	37750
Bremen, ...	4508	.....	.....	4508
Cape of Good Hope, ...	.....	198	198	.....
Ceylon, ...	14513	14540	27	.....
China—Hong-Kong, ...	6752	.....	.....	6752
France, ...	360	.....	.....	360
Mauritius, ...	.....	24	24	.....
Melbourne,...	100	656	556	.. ...
Monte Video, ...	568	.....	.....	568
Muscat, ...	.. ...	1054	1054	.....
Penang and Singapore, ...	101885	37672	.....	64213
Total, Foreign Ports, ...	197470	54398	1859	144931
British Indian or Home Ports.				
Bombay, ...	85445	.....	.....	85445
Madras, Musulipatam, &c.,	163462	44409	... ..	119053
Rangoon, ...	76529	174943	98414	.....
Tenasserim Coast, ...	.....	3475	3475	.....
Total, Home Ports, ..	325436	222827	101889	204498
Indian Ports not British				
Karakel, ...	380	.....	.....	380
Total, Indian Ports not British, ...	380	.....	.....	380
Total, Arracan,... ...	523286	277225	103748	349809

IV.—ARRACAN.—(*Concluded.*)

EXPORTS.	1858-59.	1859-60.	INCREASE.	DECREASE.
Foreign or External Ports.				
United Kingdom,... ...	1968581	2500574	531993	.....
Bremen, ...	.....	19500	19500	.....
Ceylon, ...	15068	... ..	.....	15068
China, Hong-Kong, ...	78722	.....	.....	78722
China, Other Ports, ...	.....	110409	110409	.....
France, ...	76500	22575	.....	53925
Melbourne, ...	.....	11940	11940	.....
Penang and Singapore, ..	403278	15662	.....	387616
Total, Foreign Ports, ...	2542149	2680660	673842	535331
British Indian or Home Ports.				
Madras, Musulipatam, &c.,	223475	70183	.....	153292
Rangoon, ...	14565	.....	.....	14565
Total, Home Ports, ...	238040	70183	.....	167857
Total, Arracan, ...	2780189	2750843	673842	703188

General Comparative Statement.—(Continued.)
V.—TENASSERIM PROVINCES.

IMPORTS.	1858-59.	1859-60.	INCREASE.	DECREASE.
Foreign or External Ports.				
United Kingdom, ...	660180	490275	.....	159905
Bremen, ...	.....	864	864	.....
Ceylon, ...	2227	14	.....	2213
China—Hong-Kong, ...	.....	760	760	.....
Hamburgh, ...	348	.....	.....	348
Mauritius, ...	204	31637	31433	.....
New South Wales, ...	188	.....	.....	188
Nicobars, ...	27272	30383	3111	.....
Penang and Singapore, ...	308332	179299	.....	129033
Seychelles, ...	228	.....	.....	228
Siam, ...	21013	49870	28857	.....
Total, Foreign Ports, ...	1019992	783102	65025	301915
British Indian or Home Ports.				
Arracan, ...	.....	1530	1530	.....
Bassein, ...	40	.....	.....	40
Bombay, ...	44380	7976	.....	36404
Chittagong, ...	.....	8590	8590	.....
Coringa, ...	147650	169700	22050	.....
Coco Islands, ...	.....	1856	1856	.....
Dacca, ...	.....	101578	101578	.....
Kurrachee, ...	.....	88	88	.....
Madras, ...	46986	30984	.....	16002
Masulipatam, ...	45880	21793	.....	24087
Mergui, ...	.....	90816	90816	.....
Nagore, ...	47329	8925	.....	38404
Negapatam, ...	10517	43363	32846	.....
Nursapore, ...	14292	.....	.....	14292
Poondy Barrowah, ...	.....	4478	4478	.....
Porto Nobo, ...	.....	1937	1937	.....
Rangoon, ...	1435316	1916533	481217	.....
Tavoy, ...	.....	53062	53062	.....
Tranquebar, ...	2753	4105	1352	.....
Vizagapatam, ...	6800	30504	23704	.....
Yea, ...	.....	1513	1513	.....
Total, Home Ports, ...	1801943	2499331	826617	129229
Indian Ports not British.				
Karakel, ...	6043	4881	.....	1162
Pondicherry, ...	16055	160	.....	15895
Total, Indian Ports not British,	22098	5041	.....	17057
Total, Tenasserim Provinces, ...	2844033	3287474	891642	448201
Grand Total, Rupees, ...	168956209	211725016	68399860	25631113
Deduct Decrease, ...			25631113	
Net Increase, Rupees, ...			42768747	

General Comparative Statement.—(Concluded.)

V.—TENASSERIM PROVINCES.—(*Concluded.*)

EXPORTS.	1858-59.	1859-60.	INCREASE.	DECREASE.
Foreign or External Ports.				
United Kingdom, ...	2143413	2263175	119762	.....
Algoa Bay, ...	.....	108	108	.....
Bremen, ...	.....	33135	33135	.....
Ceylon, ...	32745	50252	17507	.....
China—Hong-Kong, ...	96396	.....	.....	96396
France, ...	.....	59808	59808	.....
Mauritius, ...	142992	75988	.....	67004
Nicobars, ...	9854	5764	.....	4090
Penang and Singapore, ...	198433	171399	.....	27034
Rotterdam, ...	.....	35754	35754	.....
Siam, ...	31121	28650	.....	2471
Sumatra, ...	2306	.....	.....	2306
Total, Foreign Ports, ...	2657260	2724033	266074	199301
British Indian or Home Ports.				
Arracan, ...	.....	120	120	.....
Andamans, ...	2871	37112	34241	.....
Bassein, ...	10474	10959	485	.....
Bombay, ...	334939	394860	59921	.....
Chittagong, ...	.....	1935	1935	.....
Coringa, ...	119490	142097	22607	.....
Dacca, ...	.....	76536	76536	.....
Kurrachee, ...	26653	.....	.....	26653
Madras, ...	155295	179189	23894	.....
Masulipatam, ...	6112	15949	9837	.....
Mergui, ...	.....	44358	44358	.....
Nagore, ...	174594	107257	.....	67337
Rangoon, ...	803842	565170	.....	238672
Tavoy, ...	.....	87873	87873	.....
Tranquebar, ...	.....	15180	15180	.....
Vizagapatam, ...	12680	.....	.....	12680
Yea, ...	1753	.....	.....	1753
Total, Home Ports, ...	1648703	1678595	376987	347095
Total, Tenasserim Provinces, ...	4305963	4402628	643061	546396
Grand Total, Rupees, ...	159773200	150011714	37063148	46824634
	Deduct Increase, ...			37063148
	Net Decrease, Rupees, ...			9761486

Statement showing the Aggregate Value of the Principal Articles of Import into Calcutta by Sea, in 1859-60, *compared with similar Imports in* 1858-59.

	1858-59.	1859-60.	Increase.	Decrease.
Apparel, ...	3140904	2488608	.....	652296
Beads, ...	227665	813623	585958	.....
Books and Stationery, ...	1088186	1554834	466348	.....
Cabinet-ware, ...	346707	87337	.....	259370
Chanks, ...	119472	92024	.....	27448
Cigars, ...	296317	295076	.....	1241
Coals, ...	684995	240436	.....	444559
Coffee, ...	302925	102863	.....	200062
Cotton Twist and Yarn, ...	9196723	11036759	1840036	.....
Cotton Piece Goods, ...	46053924	58737617	12683693	.....
Drugs, ...	157290	299219	141929	.....
Dyes, ...	394026	614614	220588	.....
Fruits and Nuts, ...	1012028	1138574	126546	.....
Glass-ware, ...	423072	709411	286339	.....
Gums, ...	106449	71108	.....	35341
Hides, ...	704837	672101	.....	32736
Ice, ...	138557	52161	.....	86396
Instruments, Musical, ...	109520	132798	23278	.....
Jewellery, ...	847180	1212648	365468	.....
Machinery, ...	4694509	7885699	3191190	.....
Malt Liquors, ...	1580670	2553784	973114	.....
Manufactured Metals, ...	5992754	8124194	2131440	.....
Medicine, ...	236071	179073	.....	56998
Metals. Copper, ...	2672667	4066231	1393564	.....
Metals. Iron, ...	1831949	2833970	1002021	.....
Metals. Lead, ...	42096	89435	47339	.....
Metals. Quicksilver, ...	59566	255058	195492	.....
Metals. Spelter, ...	393380	1369125	975745	.....
Metals. Steel, ...	55989	193328	137339	.....
Metals. Tin, ...	472995	474147	1152	.....
Metals. Yellow Metals, ...	246749	464799	218050	.....
Military Stores, ...	9056	36209	27153	.....
Naval ditto, ...	346034	396448	50414	.....
Oilman's ditto, ...	484238	430972	.....	53266
Paints and Colors, ...	605619	520374	.....	85245
Perfumery, ...	178161	309116	130955	.....
Porcelain and Earthen-ware, ...	206898	238022	31124	.....
Provisions, ...	625454	734700	109246	.....
Salt, ...	2493075	1990142	.....	502933
Silk Goods, ...	459710	1140100	680390	.....
Spices, ...	1171555	1023036	.....	148519
Spirits, ...	1585764	1235205	.....	350559
Timbers and Planks, ...	683877	1159596	475719	.....
Umbrellas, ...	546822	407012	.....	139810
Wines, ...	2842207	2350718	.....	491489
Woollens, ...	1372039	1530513	158474	.....
Sundries, ...	6262691	4092264	.....	2170427
Merchandise, ...	103503672	126435081	28670104	5738695
	61977598	78672699	16695101	.....
Treasure, ...				
Total, Rupees, ...	165481270	205107780	45365205	5738695
Deduct Decrease, ...		... ...	5738695	
Net Increase, Rupees, ...		... ...	39626510	

Statement shewing the Aggregate value of the Principal Articles of Export from Calcutta by Sea in 1859-60, *compared with similar Exports in* 1858-59.

	1858-59.	1859-60.	Increase.	Decrease.
Apparel, ...	85240	80445	.....	4795
Books, ...	1787	586	.....	1201
Cotton Goods, ...	665949	470936	.....	195013
Cotton Wool, ...	41072	656297	615225	.....
Cowries, ...	7214	5042	.....	2172
Drugs, ...	157987	239618	81631	.....
Dyes, Indigo, ...	17438771	15402546	.....	2036225
Dyes, Other sorts,	860838	665748	.....	195090
Grain, ...	15678701	15241566	.....	437135
Gunnies and Bags,	5997764	4299626	....	1698138
Hides, ...	3840712	3076770	.....	763942
Horns, ...	99527	93250	.....	6277
Jute, ...	5251490	2901688	.....	2349802
Lac, ...	792207	776737	.....	15470
Naval Stores, ...	306397	162167	.....	144230
Oils, ...	520685	693442	172757	.....
Opium, Behar, ...	45985313	33584578	.....	12400735
Opium, Benares,	5760989	9626159	3865170	.....
Provisions, ...	232919	236364	3445	.....
Saltpetre, ...	4577748	4307211	.....	270537
Seeds, ...	8207425	7041318	.....	1166107
Shawls, Cashmere,	241370	377866	136496	....
Silk, Piece Goods,...	2907815	2979986	72171	.....
Silk, Raw and Cocoons, ...	7594345	8709906	1115561	.....
Spirits, Rum, ...	17716	54522	36806	.....
Sugar, ...	14397039	9377079	.....	5019960
Tallow, ...	135946	142029	6083	.....
Tobacco, ...	400919	267638	.....	133281
Wax and Wax Candles, ...	132661	141521	8860	.....
Sundries, ...	1370139	2279628	909489	.....
Total,... ...	143708685	123892269	7023694	26840110
Imports, Re-exported, ...	6235771	8058297	1822526	.....
Total, ...	149944456	131950566	8846220	26840110
Treasure, ...	2583858	10044791	7460933	.....
Total Rupees,	152528314	141995357	16307153	26840110
Deduct Increase, ...				16307153
Net Decrease, Rupees, ...				10532957

SPECIE AND BULLION.

IMPORTS.	1858-59.	1859-60.	INCREASE.	DECREASE.
United Kingdom, ...	19880773	48276287	28395514	.....
Aden, ...	94907	24175	.....	70732
America, North, ...	20500	57500	37000	.....
Arabian Gulf, ...	147291	193000	45709	.....
Bourbon, ...	1025681	478276	.....	547405
Cape of Good Hope, ...	4200	.....	.....	4200
Ceylon, ...	1451395	915277	.....	536118
CHINA, Hong-Kong, ...	15156909	5191573	.....	9965336
CHINA, Other Ports, ...	7569018	1254417	.....	6314601
France, ...	1850863	2550549	699686	.....
Malta, ...	4000	.....	.....	4000
Mauritius, ...	997858	1268298	270440	.....
New South Wales, ...	559572	3899326	3339754	.....
Penang, Singapore and Malacca,	3509744	3023095	.....	486649
Persian Gulf, ...	86250	202812	116562	.....
Suez, ...	2084739	9554818	7470079	.....
Sumatra, ...	50	.....	.....	50
Trieste, ...	.....	2480	2480	.....
Akyab, ...	78900	12000	.....	66900
Bombay, ...	2499351	8375	.....	2490976
Bimlipatam, ...	.....	29800	29800	.....
Coconada, ...	.....	4000	4000	.....
Madras, ...	3777069	1305250	.....	2471819
Moulmein, ...	58243	202566	144323	.....
Rangoon, ...	413828	194825	.....	219003
Pondicherry, ...	843600	18000	.....	825600
Vizagapatam, ...	.....	6000	6000	.....
Total, Rupees, ...	62114741	78672699	40561347	24003389
Deduct Decrease, ...			24003389	
Net Increase, Rupees, ...			16557958	

SPECIE AND BULLION.

EXPORTS.	1858-59.	1859-60.	INCREASE.	DECREASE.
United Kingdom, ...	5460	.....	.....	5460
Bourbon,...	96072	.....	.....	96072
Ceylon, ...	291030	2271000	1979970	.....
CHINA, Hong-Kong, ...	13105	535818	522713	.....
CHINA, Other Ports, ...	.....	288897	288897	.....
Mauritius, ...	34500	.....	.....	34500
New South Wales, ...	.....	98000	98000	.....
Penang, Singapore and Malacca,	139696	715715	576019	.....
Akyab, ...	2948468	2410777	.....	537691
Bimlipatam, ...	.....	455150	455150	.....
Bombay, ...	7650	315000	307350	.....
Coconada, ...	6000	49000	43000	.....
Madras, ...	830725	665625	.....	165100
Masulipatam, ...	.....	4000	4000	.....
Moulmein, ...	1083539	1286017	202478	.....
Rangoon,...	1159620	949792	.....	209828
Total Rupees, ...	6615865	10044791	4477577	1048651
Deduct Decrease, ...			1048651	
Net Increase, Rupees, ...			3428926	

Calcutta.

Crown's Consignment in 1859-60 and 1858-59.

IMPORTS BY SEA.	London.	Suez.	Total. 1859-60.	Total. 1858-59.	Increase.	Decrease.
Military Stores, ...	2514832	16777	2531609	4359001	.....	1827392
Naval Stores, ...	1774753	.....	1774753	979199	795554	.....
Treasure, ...	22938036	.....	22938036	776400	22161636	.....
Total Rupees, ...	27227621	16777	27244398	6114600	22957190	1827392
Deduct Decrease, ...					1827392	
Net Increase, Rupees, ...					21129798	

IMPORTS BY LAND.	1858-59.		1859-60.		Increase.		Decrease.	
	Chests.	Value.	Chests.	Value.	Chests.	Value.	Chests.	Value.
Opium Behar, ...	22396	33030445	20419	20101125	.....	.....	1977	2929320
Opium Benares, ...	8485	12773575	4834	12207550	.....	.....	3651	566025
Total Rupees, ...	30881	45804020	25253	42308675	.....	.....	5628	3495345

EXPORTS BY SEA.	Akyab.	Bombay.	Moulmein.	New South Wales.	Penang and Singapore.	Rangoon.	Total. 1859-60.	Total. 1858-59.	Increase.	Decrease.
Treasure, ...	9000	50000	55000	79000	300000	93000	586000	21324893	.....	20738893

COTTON TRADE.

I.—*IMPORTS.*

COTTON TWIST AND YARN.

	1858-59.	1859-60.	INCREASE.	DECREASE.
United Kingdom, .	8853739	10777945	1924206	.....
America, North, ...	.....	2328	2328	.....
Cape of Good Hope,	450	.....	.....	450
France, ...	2700	21768	19068	.....
Hamburgh, ...	450	4750	4300	.....
Penang, Singapore & Malacca,	117199	53595	.....	63604
Akyab, ...	.....	200	200	.....
Bimlipatam, ...	18900	39650	20750	.....
Bombay, ...	.....	5955	5955	.....
Madras, ...	202400	128200	.....	74200
Moulmein, ...	.....	583	583	.....
Rangoon, ...	885	1285	400	.....
Vizagapatam, ...	.....	500	500	.....
Total, Rupees,...	9196723	11036759	1978290	138254
Deduct Decrease, ...			138254	
Net Increase, Rupees, ...			1840036	

COTTON PIECE GOODS.

	1858-59.	1859-60.	Increase.	Decrease.
United Kingdom, ...	44466753	57405881	12939128	.....
America, North, ...	526708	472647	.....	54061
Antwerp, ...	4702	.. ...	.....	4702
Cape of Good Hope, ...	.....	100	100	.....
Ceylon, ...	20029	11183	.....	8846
China, Hong-Kong, ...	46522	35758	.....	10764
China, Other Ports, ...	30322	69631	39309	.....
France, ...	13802	60435	46633	.....
Hamburg, ...	300	10454	10154	.....
Mauritius, ...	12899	3273	.....	9626
New South Wales,... ...	.....	20166	20166	.....
Penang, Singapore and Malacca,	444083	334853	.....	109230
Suez, ...	3549	35076	31527	.....
Bimlipatam, ...	139350	3200	.....	136150
Bombay, ...	129937	238761	108824	.....
Cartapatam, ...	500	.....	.....	500
Coconada, ...	4100	2000	.....	2100
Coringa, ...	11300	.....	.....	11300
Madras, ...	83290	24513	.....	58777
Masulipatam, ...	220	350	130	.....
Moulmein, ...	.....	4770	4770	.....
Pooree, ...	.....	300	300	.....
Rangoon, ...	115558	2108	.....	113450
Vizagapatam, ...	.....	2158	2158	.....
Total, Rupees, ...	46053924	58737617	13203199	519506
Deduct Decrease, ...			519506	
Net Increase, Rupees,... ...			12683693	

Imports of Cotton Wool.

From	Rs.
United Kingdom, ...	1755
Bimlipatam, ...	1000
Bombay, ...	622875
Coconada, ...	46
Karlapatam, ...	2500
Madras, ...	476894
Masulipatam	19060
Rangoon, ...	7500
Tuticorin, ...	120150
Vizagapatam, ...	5400
Total,	Rs. 12,57,180

II.—*EXPORTS OF COTTON GOODS.*

	1858-59.	1859-60.	Increase.	Decrease.
United Kingdom, ..	16301	12909	.....	3392
Aden, ...	23644	146	.....	8988
America, North, ...	2707	4289	1582	.....
Arabian Gulf, ...	131976	101277	.....	30699
Cape of Good Hope, ...	4495	.....	.....	4495
Ceylon, ...	5152	6091	939	.....
China, ... Hong-Kong, ...	1997	677	.....	1320
China, ... Other Ports, ...	15	.....	.....	15
France, ...	2380	.....	.....	2380
Hamburgh, ...	.....	350	350	.....
Java, ...	3998	.....	.....	3998
Maldive Islands, ...	890	368	.....	522
Mauritius, ...	6325	344	.....	5981
New South Wales, ...	300	1100	800	.....
Penang, Singapore & Malacca, ...	33459	7109	.....	26350
Persian Gulf, ...	24520	.....	.....	24520
Suez, ...	15389	.....	.....	15389
Sumatra, ...	346	.....	.....	346
Bombay, ...	168816	65892	.....	102924
Calicut, ...	9816	.....	.....	9816
Cananore, ...	1150	.....	.....	1150
Madras, ...	30972	32340	1368	.....
Moulmein, ...	.....	34635	34635	.....
Rangoon, ...	175235	182657	7422	.....
Tellicherry, ...	5546	5950	404	.....
Alipee, ...	520	292	.....	228
Total Rupees, ...	665949	470936	47500	242513
Deduct Increase, ...				47500
Net Decrease, Rupees, ...				195013

Exports of Cotton Wool.

	1858-59.	1859-60.	INCREASE.	DECREASE.
United Kingdom, ...	36022	24442	.....	11580
CHINA, { Hong-Kong, ...	5000	432321	427321	.....
CHINA, { Other Ports, ...	.....	163634	163634	.....
Mauritius, ...	.....	1620	1620	.....
Penang, Singapore and Malacca, ...	.....	32180	32180	.....
Moulmein, ...	.....	600	600	.....
Rangoon, ...	50	1500	1450	.....
Total, Rupees, ...	41072	656297	626805	11580
Deduct Decrease, ...			11580	
Net Increase, Rupees, ...			615225	

REVENUE ADMINISTRATION OF THE PUNJAB.

1859-60.

ON the 15th June 1860, Mr. Cust, the Officiating Financial Commissioner of the Punjab, forwarded the Report on the Revenue administration of the Punjab and its dependencies for 1859-60 to the local Government. Each Division is reported on separately by its Commissioner. For the first time the Divisions of Delhi and Hissar are reported on as part of the Punjab.

STATEMENT shewing alterations in the Land Revenue Demand in the Districts under the Punjab Government, for the year 1859-60, *as compared with that of the previous year* 1858-59.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
		INCREASE.								DECREASE.						
DIVISION.	Jumma of the year 1858-59 as per kistbundee.	By lapses and resumptions of revenue free lands.	By revision of assessment farms, &c.	By alluvion.	By land released from occupation by Govt.	By territorial transfer.	By allotments of waste.	By progressive jummas.	Total increase.	By grants of land revenue free.	By revision of assessment owing to calamities of season, deterioration of assessed farms, &c.	By diluvion.	By land being occupied by Government.	By territorial transfer.	Total decrease.	Jumma of the year 1859-60 as per kistbundee.
Delhi, ...	23,22,137	1,08,416	..	30	...	512	...	...	1,08,959	5,481	20,044	...	33	85,155	1,10,713	23,20,382
Hissar,	17,42,152	75	...	...	...	13,600	...	13,582	27,257	1,913	3,501	...	...	9,812	15,226	17,54,183
Cis-Sutlej states, ...	16,16,340	4,387	10	1,593	...	17,828	...	4,050	27,868	2,966	1,526	27,665	370	13,815	46,342	15,97,866
T.-Sutlej States, ...	30,32,000	16,638	...	3,433	....	...	...	...	20,071	17,179	8,626	11,019	1,119	...	37,943	30,14,128
Amritsur, ...	28,91,808	15,939	150	2,721	40	...	..	426	19,276	2,212	98,511	24,252	1,450	...	1,26,425	27,84,659
Lahore, ..	13,10,840	6,547	...	1,772	...	...	160	4,076	12,555	1,472	7,979	3,435	227	408	13,521	13,09,874
Rawul Pindee, ...	22,45,352	2,112	39,309	870	...	3,625	...	4	45,920	1,104	77,187	134	1	4,291	82,717	22,08,555
Mooltan, ...	14,63,599	768	1,255	523	...	1,40,675	1,482	10,088	1,54,791	679	12,392	1,920	...	...	14,991	16,03,399
Leia, ...	12,54,043	65	1,879	1,519	...	...	...	100	3,563	12	2,272	3,329	3	1,29,624	1,35,240	11,22,366
Peshawur, ...	9,07,771	395	205	...	200	...	...	...	800	1,355	830	59	...	...	2,244	9,06,327
Grand Total,	1,87,86,042	1,55,342	42,808	12,461	240	1,76,240	1,642	32,326	4,21,059	34,373	2,32,868	71,813	3,203	2,43,105	5,85,362	1,86,21,739

Land Revenue.—The large Revenue of Rs. 1,81,68,735 was collected with a balance of only 2·44 Rs. per cent., without recourse to any of the severer processes of the Law. Large reductions were made in the assessment, but will henceforth become quite exceptional as the revised settlements are drawing to a close. Every District from the Hill Pergunnahs in Simla, to the Trans-Indus Pergunnah of Dehra Ghazee Khan, passed under review. The grant of new assignments of Land Revenue, by way of reward for good service during the troubles, reduced considerably the resources of the State. Diluvion will entail annual loss and also the careless mode of appropriating land for public purposes. A Book Circular was issued, calling on Commissioners to prepare and forward annually a Kistbundee, showing the amount of Land Revenue for the in-coming year, and the steps, and authority, by which changes have been made. Thus there will be, when the demand is certain and fixed, an audit of collections and balance of real value.

Customs and Salt.

1858-59, Gross	...	...	Rs. 48,87,629
1859-60, do.	...	...	„ 49,51,728

Excise on Liquors.

1858-59, Gross	...	...	„ 4,31,892
1859-60, do.	...	...	„ 4,98,592

Excise on Drugs.

1858-59, Gross	...	...	„ 2,42,459
1859-60, do.	...	...	„ 2,46,718

Law Stamps.

1858-59,	...	...	„ 4,17,335
1859-60,	...	...	„ 7,63,022

This large increase was exceptional.

New tax on the Non-agriculturist.

1858-59	...	...	Rs. Nil.
(Six months) 1859-60	...	...	„ 11,22,953

STATEMENT of Financial results of the Non-Agricultural Tax in the Divisions under the Punjab Government, for the year 1859-60.

1	2	3			4	5			6	7	8	9			10	11	12
		Octroi.							Licence Tax.								
DIVISION.	Number of Towns.	Gross Collections.			Direct charges of collection by way of percentage or establishment.	Actual collections credited to Government.			No. of villages not Taxed.	No. of villages Taxed.	No. of Licenses.	Amount of Licenses.			Total of Tax.	Miscellaneous charges Sudder and Mofussil.	Net Revenue, accruing to the State.
		Rs.	A.	P.		Rs.	A.	P.				Rs.	A.	P.			
Delhi, ...	55	1,72,400	...	...	40,688	1,31,712	...	...	293	668	15,991	13,124	...	...	1,44,836	815	1,44,021
Hissar, ...	16	1,48,867	...	..	46	1,24,237	..	...	223	1,057	13,642	15,659	...	...	1,39,896	44	1,39,852
Cis-Sutlej States,	42	58,127	...	...	...	58,127	...	...	1,334	2,391	42,480	37,019	...	...	95,146	107	95,039
Trans-Sutlej do.,	102	74,490	...	...	2,971	71,519	...	...	917	3,184	48,504	44,693	...	...	1,16,212	13,675	1,02,537
Amritsur, ...	97	1,36,652	...	...	1,355	1,35,297	...	...	1,698	4,070	74,045	23,311	...	...	1,58,608	2,552	1,56,056
Lahore, ...	206	1,22,543	...	...	712	1,21,831	...	.	1,846	2,128	12,355	11,550	...	...	1,33,381	13,482	1,19,899
Rawul Pindee, ...	91	50,495	..	...	...	50,495	...	...	1,577	3,042	19,458	32,174	...	..	82,669	6,418	76,251
Mooltan, ...	48	41,558	...	...	234	41,324	...	...	1,984	2,846	47,300	93,682	...	...	1,35,006	734	1,34,272
Leia, ...	83	65,520	8	0	1,200	48,435	8	0	136	1,037	2,350	2,803	8	0	51,239	200	51,039
Peshawur, ...	8	66,389	...	...	1,810	64,579	..	...	566	356	...	1,381	...	...	65,960	...	65,960
Total, ...	748	9,37,041	8	0	49,016	8,47,556	8	0	10,574	20,779	2,76,125	2,75,396	8	0	11,22,953	38,027	10,84,926

Note—I do not place much reliance on this return.

R. N. CUST,
Offg. Finl. Commr.

Tribute paid by giving Government a share in revenue-free villages is entered as land revenue. Otherwise there was:—

Cis-Sutlej States, Rs. 23,105 paid by the Rajpoot Hill Chiefs.

Trans-Sutlej States, Rs. 1,22,500 paid by the Rajah of Kuppoorthullah. 25,000 Rs. additional has to be paid from this year in lieu of Jagheer restored to him.

Tenant Right.—Mr. Cust trusts that gradually sounder views are obtaining in the Punjab with regard to the position of tenants with right of occupancy and tenants at will. "We are gradually working out an equitable tenant right code: we have ruled that the tenant with right of occupation can sub-let, or in other words, maintain a constructive occupancy; that the right of transfer may be an incident of his tenure, though not ordinarily so: he is entitled moreover to pay at *certain* rates, not *absolutely fixed* rates, but *capable* of judicial fixation, and varying with the prosperity of the neighbourhood, and where the tenant pays the Revenue rate of the village, the non-record of Malikanah at Settlement does not bar—whatever period may have elapsed—the trial of *that* matter on its own merits: his rent cannot be converted from grain to cash, without his consent, or his fault. On the other hand, we have ruled, that no new customary rights of occupancy are now forming, that no period of tenancy will give any right to tenants at will, as so recorded, and we have not yet conceded what, I think, we may gradually be justified in doing, the right of sinking Wells, planting gardens, cutting timber for non-agricultural purposes: this privilege might be purchased by some fee from the owner, and generally some principle of compensation for improvements be introduced. The tenant at will should have no prescriptive rights whatever, and be liable to ejection at the commencement of each agricultural year."

Below the Talooqadars come the Istumrardars, who are a cross between a Jagheerdar and a Proprietor: the Mundu-Pathans of Kurnaul, the Khuttuk Sirdars in Kohat, are specimens of this tenure. The statistics of this class are not yet collected.

Pensions.—The increases and decreases were noted for the first time, and the exact position of the responsibility of Government recorded. These recipients of Government bounty will come under the Income Tax. Quarterly Budgets will be submitted for all future grants, and it is proposed to limit the period of payment to those months when there is an abundance of cash in the Treasuries.

Minor Coercive Processes.

	1858-59.	1859-60.
Number of Dustuks issued, ...	41,314	48,784
Amount of Talabana realised, ...	Rs. 39,659	Rs. 37,329
Amount of Talabana expended, ...	21,730	19,586
Number of Cases of Personal Imprisonment, ...	14	16
Number of Cases of Distraint of Personalty, ...	13	8

Estates attached, sequestrated, farmed and sold.

	1858-59.	1859-60.
No. held Kham or Khurk, ...	4	124
Jamma, ...	Rs. 1,392	Rs. 18,575
Receipts, ...	525	17,403
No. in which Pattis have been transferred, ...	4	11
Jamma, ...	Rs. 2,978	Rs. 7,090
No. of Pattis transferred, ...	6	8
Jamma of do., ...	Rs. 1,261	Rs. 1,932
No. of Estates Farmed.		
Entire Estates, ...	2	1
Pattis, ...	...	69
Jamma, ...	Rs. 1,000	...
No. of Estates sold.		
Entire estates, ...	2	...
Pattis, ...	2	...
Jamma, ...	Rs. 4,540	...
Balance at time of sale, ...	850	...

Number and Average Duration of Summary Suits.

	1858-59.	1859-60.
Number instituted for Rent, ...	8,928	9,000
Ditto Ouster, ...	6,964	8,887
Ditto Exaction, ...	3,341	2,701
Ditto Putwaries' fees, ...	706	888
Cases Pending at close of last year, ...	806	672
Total instituted, ...	19,939	21,476
Grand total, ...	20,745	22,148
No. of cases decreed in whole, ...	5,845	6,504
Ditto in part, ...	4,519	3,740
Ditto Dismissed, ...	3,139	4,489
Ditto adjusted or withdrawn, ...	5,640	5,744
Ditto struck off in default, ..	920	894
Total disposed of, ...	20,063	21,371
No. pending at close of year, ...	682	777
Average cost of each suit, ...	7 *as.* 9 *p.*	4 *as.* 5 *p.*

Regular Settlement Work performed in the several districts.

	In 1859-60.	
	Disposed of.	Pending.
Litigated cases involving investigations and record of evidence, ...	10,226	2,281
Rent-free Investigations, ...	313	163
Matters connected with subordinate officials, ...	624	77
General matters of record and adjustment, .	1,582	113
Matters connected with measurements and statistics, ...	4,116	181
Ditto with assessments, ...	2,070	12
Completion of Settlement Records, ...	4,778	555
Miscellaneous, ...	9,030	661
Total in the year, ...	32,739	4,043

There were assessed 41,092 villages at a jumma of Rs. 19,35,446. The expenditure from the commencement of the Settlement to

the close of last year was Rs. 4,91,283, and during the year was 56,699.

Of Appeals preferred to Commissioners in the Revenue and Settlement Departments from the orders of Deputy Commissioners, Assistants and European Extra Assistants with full powers, and Settlement Officers and Assistants, there were :—

	1858-59.	1859-60.
Regular, ...	688	1,260
Settlement, ...	1,030	1,104
Summary, ...	1,063	1,176
These were thus disposed of		
Regular Confirmed, ...	428	880
Settlement do., ...	517	704
Summary do., ...	687	767
Regular Reversed, ...	85	165
Settlement do., ...	68	83
Summary do., ...	128	163
Regular Modified, ...	98	159
Settlement do., ...	241	180
Summary do., ...	144	169
Regular Pending, ...	77	55
Settlement do., ...	244	137
Summary do., ...	77	77
Average period each was pending.		
Regular, ... days.	7	20
Settlement, ...	2	21
Summary, ...	7	15

Of Appeals preferred to Deputy Commissioners in the Revenue Department from the orders of Assistant Commissioners, Extra Assistants and Tuhsildars there were 160 pending at the close of last year, and 1,991 instituted during 1859-60. Of these 1,275 were confirmed, 227 reversed, 427 modified and 222 pending at the close of the year. Each appeal was pending on an average 10 days against 18 the previous year.

Putwarries.—To 34,056 mouzahs and 6,677 hulkahs there were 6,724 putwarries. The average area of each hulkah was 7,138·1 acres and the average pay of each putwarrie was yearly Rs. 103-13-6.

Alienations of Land Revenue.—Mr. Cust remarks;—"Up to this time there has been no record of the prodigious alienations of Land

Revenue to the servants and favourites of former Rulers, and latterly to those who have deserved well of the British Government. A total of 18,40,154 acres yielding a jumma of Rs. 14,33,987 was thus assigned in perpetuity; of 18,82,743 acres with a jumma of Rs. 16,14,446 for one or more lives; of 99,232 acres with a jumma of Rs. 1,06,213 during maintenance of establishment; and of 1,05,879 acres with a jumma of 1,73,723 pending report or order of Government. The total alienation thus amounted to 39,28,008 acres with a jumma of Rs. 33,28,369.

Average Fall of Rain.	1858-59.	1859-60.
May, ... inches.	·28	·60
June, ...	1·96	2·51
July, ...	6·58	2·30
August, ...	3·97	4·36
September, ...	3·43	2·68
October, ...	·20	·21
November, ...	·13	·21
December, ...	·42	1·27
January, ...	1·73	1·64
February, ...	1·53	1·50
March, ...	1·06	·88
April, ...	1·74	·54
Total, ...	21·17	17·27

Statistics of Landholders and Occupiers.

	1858-59.	1859-60.
Number of Mouzahs, ...	32,239	32,783
„ Lumburdars, ...	68,104	69,432
„ Puttidars, ...	10,71,999	11,30,426
„ Cultivators with right of occupancy, ...	3,04,104	2,23,333
„ Tennants at will, ...	4,94,970	5,72,583

As this was the first year such a Statement had been prepared, it is not to be implicitly depended on.

Sale of Malguzaree Lands.

	1858-59.	1859-60.
Sale or transfer by order of Court.		
Number of cases, ...	216	96
Yearly Rental, ...	7,444	5,704
Value realised, ...	23,988	12,158
Sales by private engagement.		
Number of cases, ...	1,968	1,107
Yearly Rental, ...	41,307	23,245
Amount agreed on, ...	1,65,005	1,49,350
Mortgages.		
Number of cases, ...	2,885	1,391
Yearly Rental, ...	42,040	28,934
Amount for which mortgaged, ...	1,83,935	1,36,854

Number and classes of Landed Proprietors in several Districts under the Punjab Government according to the amount of Land Revenue paid by them.

The total number of Proprietors or Khewatdars up to the Fuslee year 1266 was 11,11,955. Of these there was paid

	Per Annum.
By 2 single and 738 families of 2 or more co-proprietors, ...	...Rs. 5,000 and upwards.
By 100 individuals and 9,285 families, ...	„ 2,500 to 5,000
By 1,094 individuals and 14,656 families, ..	„ 1,000 to 2,500
By 3,034 individuals and 14,730 families, ...	„ 500 to 1,000
By 509 individuals and 5,183 families, ...	„ 400 to 500
By 2,146 individuals and 17,229 families, ...	„ 200 to 400
By 5,153 individuals and 29,436 families, ...	„ 100 to 200
By 18,986 individuals and 87,002 families,	„ 50 to 100
By 3,00,053 individuals and 5,89,810, families,	less than 50

The Number of Talooqdars was 3,130 in all the districts. In 129 villages they were, and in 837 they were not, Malguzars. The total amount drawn as Talooqdaree allowance was Rs. 21,233 and 26·4 maunds of grain.

The Unadjusted Balances in the Punjab Treasuries amounted to Rs. 24,09,641 at the end of 1858-59, and to Rs. 39,48,926 at the end of 1859-60.

The Number of Civil Pensioners at the close of the year was 5,316 drawing Rs. 11,92,547 annually. Of these 5,188 drew 11,12,355 for life or lives; 110 drew Rs. 76,379 in perpetuity and 18 drew 3,813 during maintenance of establishment.

The Appeals in the Financial Commissioner's Office were 1,037, of these 709 were confirmed, 35 reversed, 13 modified, 85 returned for re-investigation, 1 sent up to the Lieutenant Governor, 1 transferred to the Maafee department and 193 pending at the close of the year.

Conclusion.—Mr. Cust says:—"My distinguished predecessors, Mr. McLeod and Mr. A. A. Roberts, held the post of Financial Commissioner during the whole year, with the exception of the last six weeks. I am but the recorder of the deeds of others, but it is a labour of love to record a year's progress of a great Province like the Punjab and its dependencies, where a vast Revenue is raised by a mere wave of the hand from a willing and a prospering population. The least sign of suffering has been followed by reduction of demand and remission of balances." The Lieutenant Governor generally approves of the Report.

VACCINATION IN THE AGRA DIVISION.

1859-60.

Dr. J. A. Currie, Superintendent of Vaccine, reports that the vaccine operations in the Agra Division in 1859-60 were eminently successful. The establishment consisted of three native superintendents, with twenty-eight vaccinators, and one vaccinator from Rohilcund sent to attend the Agra Medical School. The work continued from the beginning of November till the end of March. In Allygurh the people were "In Furbly willing to accept vaccination for their child- the people viewed ruckabad, where the small-pox was ragin as the people are it vaccination with suspicion. Custom- should be visited each year. is of importance that each Zil- vaccination were a vague, undefined dread The chief obstacles to of something happening afterwards, and the apathy of fatalists, in the absence of existing disease, or of imminent danger. The people could not, Dr. Currie says, believe that Government was going to expense for no other object than simply the good of the people. "At first I tried, in vain, to remove the difficulty by explaining the paternal relation of Government. I succeeded,

however, by explaining, that the more who were saved to grow up, the greater the amount of cultivation, and so the greater the amount of cultivation, and so the greater the revenue. This was a reason they could understand, and it frequently helped to dispel the vague dread of a seemingly gratuitous benefit." In large cities the work progressed least. There, access to the children is more difficult, and the prejudices of the city people are stronger than is the ignorance of the country folks. The total number vaccinated was :—

Months.	Successful.	Unsuccessful.	Doubtful.	Total.
November 1859, ...	735	1,069	334	2,138
December 1859, ...	16,756	4,937	4,932	26,625
January 1860, ..	47,031	11,266	10,535	68,832
February 1860, ...	58,912	21,554	18,329	98,795
March 1860, .	50,201	13,831	17,535	81,567
Grand Total,	1,73,635	52,657	51,665	2,77,957

With a population of 48,96,756, 2,77,957 or 5·67 per cent. were vaccinated.

The ages of the vaccinated were :—

Birth to 6 months,	...	...	38,457
,, 6 months to 1 year,	...		49,499
,, 1 year to 2 years,	...		53,415
,, 2 years to 3 years,	...		48,035
,, 3 years to 4 years,	...		35,681
,, 4 years to 5 years,	...		26,477
,, 5 years to 10 years,	...		20,470
,, Over 10 years,	...		59,223
Total,	...		2,77,957

Of the whole number vaccinated 1,51,645 were males and 1,26,312 were females. Classified as to caste or occupation 52,110 were Chumar, 44,451 Kolee, 17,404 Aheer, 17,393 Brahmin, 16,492 Dhakre, 16,395 Kahar, 12,346 Thakoor, 10,849 Mahommedan, and 10,831 Kachee. All the rest were below 9,000. There were 40 Christians; 5,866 were unrecorded.

THE

ANNALS

INDIAN ADMINISTRATION.

PUBLIC WORKS EXPENDITURE FOR 1860-61.

Supplement to the Calcutta Gazette, October 3, 1860.

On 19th September 1860 the Government of India published the first number of a "Supplement to the Calcutta Gazette" intended to contain such Official Papers and Information as the Government of India may deem to be of interest to the Public, and such as may usefully be made known. It has been since published weekly or twice a week.

The whole estimated Expenditure chargeable to the British Government during 1860-61 falls little short of four millions Sterling, *viz.* :—

Chargeable to Imperial Funds:—		
Disbursed in the Public Works Department	£	3,343,895
,, ,, Home Department for Electric Telegraph charges ...	,,	187,000
Government outlay for Railway Control and purchase of Land	,,	162,389
Chargeable to Local Funds	,,	223,900
Total British Public Works Expenditure	,,	3,917,185

Besides this there is an estimated Foreign Expenditure in Mysore and the Hyderabad Assigned Districts, chargeable to those Provinces, but disbursed by the Public Works Department, amounting to £107,519. Thus the total Public Works

Expenditure in India, under the control of the British Government, will amount during the year 1860-61 to £4,024,704. The outlay in the Public Works Department in £ Sterling is thus classified :—

	New Works.	Percentage of Total outlay.	Repairs.	Percentage of Total outlay.	Total.	Percentage of Total outlay.
Military Buildings ...	643,854	18	130,575	4	774 429	22
Civil do. ...	257,506	8	87,972	3	345,478	11
Agricultural Works ...	233,661	7	352,660	10	586,321	17
Communications ...	319,627	9	321,279	9	640,906	18
Miscellaneous Public Works	91,593	3	24,001	1	115,594	4
	1,546,241	45	916,487	27	2,462,728	72
Reserved for unforeseen requirements and petty Works					307,466	9
Establishment charges					681,220	19
Grand Total					3,451,414	100

Of this total £3,343,895 is British Expenditure, and this smaller sum is the total referred to in the following remarks.

Including the sum set down for unforeseen requirements and petty Works, the Expenditure on new Works is 54 per cent. of the whole; 27 per cent. is for repairs, and 19 per cent. for supervising Establishments, consisting of Engineers and their Subordinates, with the Offices for correspondence, drawing, estimating, accounts, and audit.

The Expenditure on new Military Buildings is 19 per cent. of the whole, and forms a charge of £1-16-10 per cent. on the whole Revenue of the country. It ranges from a minimum of 8*s.* 4*d.* per cent. in Bengal to a maximum of 28½ per cent. in the Straits. In Madras it is only 17*s.* 10½*d.*, in Pegu £6 4*s.* and in Oudh £16-5*s.*

The outlay on Works of Public Improvement bears exactly

the same ratio to the whole Revenue of the country as Military Works.

Speaking roughly, it may be said that Military Works, Works of Public Improvement, and Establishments absorb, each one-fifth of the whole expenditure; repairs, one-fourth; reserved for unforeseen contingencies, one-tenth; Civil Buildings, one-twentieth.

The whole outlay of every kind in the Public Works Department is £3-11-6 per square mile, and about six pence (4 annas) a head of the population, and is a charge on the Revenues of 9½ per cent.

The allotments to the several Governments were

			Per Cent. of its Revenue.	Per Square Mile.	Per Head.
To Madras	62	Lakhs, which is	10 £	4 10 7 £	0 0 6
„ Bombay	50½	„ „	8·2 „	3 11 11 „	0 0 10
„ Bengal	51½	„ „	4·9 „	2 0 8 „	0 0 3
„ N. W. P. ...	61	„ „	9·2 „	5 13 0 „	0 0 5
„ Punjab	51	„ „	16 „	5 6 8 „	0 0 8
„ Oudh	25	„ „	20·9 „	10 0 0 „	0 0 9
„ Nagpoor	6	„ „	14·7 „	0 15 8 „	0 0 3
„ Pegu	12¾	„ „	28 „	3 18 7 „	0 2 10
„ T. and M. Provinces...	2¼	„ „	15 „	0 11 10 „	0 1 5
„ Straits	6¾	„ „	51·5 „	43 3 1 „	0 6 9
„ Hyderabad (British charges)	5½	„ „			
„ Coorg	¼	„ „	7·1 „	0 17 0 „	0 0 3

THE CULTIVATION OF INDIGO IN MADRAS.

Supplement to the Calcutta Gazette, October 6, 1860.

The Secretary to the Madras Board of Revenue reports for the information of the Indigo Commission, Calcutta, that in Madras Indigo is almost entirely grown by the Ryots who have no dislike to its culture. The manufacture of the Dye is also very largely conducted by Natives on their own account. Contracts for the supply of the Plant are readily and voluntarily entered into, its cultivation being profitable and the contract securing to the producer a certain market as well as the convenience of an advance. Where the demand for the Plant is sure, the Ryots cultivate it extensively without contracts or advances. Many manufacture their own produce, and all are at full liberty to consult their own interests in making or abstaining from engagements for its sale when ready for delivery and in settling the terms of such arrangements. The "Ryots" are themselves the "Zemindars," the Ryotwaree tenure giving them absolute right to their lands in perpetuity, subject only to the condition

of paying the fixed Government assessment; they are consequently free to raise what crops they please, and are fully aware of their rights as well as able and ready to assert them. Indigo contracts are not found to be productive of more litigation, disputes, or disturbances, than contracts of any other description.

In *Cuddapah* the ryots contract to deliver so much indigo plant at the factories of the agents of Madras mercantile houses at a fixed rate per bundle. The system of advances to the pauper tenantry of this District, has done a great deal to improve their condition, as well as facilitated the collection of the Revenue. The demand has been steadily increasing of late years. The Collector estimates the cultivation and manufacture of Indigo by Natives, without European superintendence, in the ratio of 10 to 1 of that produced under European management. He considers that eight lakhs scarcely represent one-half of the sum paid for Indigo, the outturn of which on 36,000 acres, cultivated last year, at an average profit of Rupees 50 per acre, will show a value of eighteen lakhs of Rupees. In *South Arcot* natives have cultivated Indigo since the beginning of the century. In 1830 they built factories for themselves, and beat the Europeans out of the market, so that there is only one factory not under native superintendence in the district.

In *Nellore* the plant is grown entirely by natives who contract to deliver it at so many bundles per rupee, the contracts are entered into willingly and readily and the cultivation is not productive of disturbances of any sort. The ryots of some of the districts prefer to deal with Europeans. The manufacture is carried on without any European superintendence.

The Indigo grown in *Salem* is not raised chiefly on lands held by Europeans. Of 7 factories 4 belong to one European and 3 to wealthy ryots. The plan of the former is to make advances to the Ryots, who contract with him to supply the Plant at a certain price per maund, according to the quality of the crop. The contract system has not been generally productive of disputes.

In *North Arcot* European Agency is not directly employed in the cultivation and manufacture of Indigo. Messrs. Parry and Co., of Madras, and Messrs. Hart and Simpson are the only Europeans who have Factories, their Concerns are managed entirely by Native Agency, and the Indigo manufactured at their Factories is cultivated by the Ryots on their own lands, on receipt of advances made to them under agreement to deliver the leaf at a certain rate per cullum at the Factory. The Plant is also freely brought to the Factories for sale for ready cash by cultivators who have received no advance. 21,017 acres of land

were cultivated with the Indigo Plant during Fusli 1269. The produce of this may be roughly estimated at about 23,000 maunds, which, at an average selling price of 30 Rupees per maund, would give 6,90,000 Rupees as the market value of this staple manufactured within these limits. The Collector says;—"not only has the cultivation of Indigo in this District been attended with beneficial results to the Ryot and manufacturer, but it is indirectly a very profitable source of Revenue to Government, inasmuch as it brings under a highly remunerative crop, light soils which could not be utilized to equally good purpose, if sown down with the usual dry grains."

PUBLIC WORKS POSTPONED OR RETARDED FOR WANT OF FUNDS.

Supplement to the Calcutta Gazette, 31st October, 1860.

In a despatch to Sir Charles Wood, Secretary of State for India, the Governor General in Council submits Returns of Projects for Public Works in India, retarded or postponed for want of funds. Only Works of a certain magnitude costing each £10,000 are included.

The general results of the Return may be thus recapitulated :—

Estimated cost of Works postponed or retarded	...		Rs. 7,83,11,149
Deduct work done in part of the same	...		„ 2,54,50,409
Balance for which funds are required	...		Rs. 5,28,60,740
Add works not included—Wet Docks for Calcutta	...	Rs. 1,00,00,000	
Add Cuttack Irrigation and Navigation as per Colonel Cotton's Estimate	...	„ 1,30,00,000	
Add some project less expensive than Colonel Cotton's for a Canal from Rajmehal to Calcutta	...	„ 50,00,000	
Add Public Offices in Calcutta	...	„ 25,00,000	
			30,500,000
	Total	...	Rs. 8,33,60,740

The total estimated cost of all the Works, therefore, amounts to Rupees 10,88,11,149, or £10,881,115, that is nearly eleven millions sterling. Of this large aggregate, Rupees 2,54,50,409, or £2,545,040, that is two and a half millions sterling, have been already expended; so that there will remain Rupees 8,33,60,740, or £8,336,074, that is 8⅓ millions sterling, still required to be expended on these necessary Works, for which expenditure, however, funds are not at present available. The projects for the Works are upwards of one hundred in number. Of these, twenty-five relate to Irrigation and Navigation; forty-five to Communications, Roads, Bridges, and Tunnels; four projects relate to the Judicial Department; two to the Educational; and three to Sewerage, Drainage, and Water Supply. There are various projects of a miscellaneous character. Sixteen projects are Military, and two Naval or Marine. In all, there are only eighteen projects relating to the *defence* of the country, out of a total of one hundred and six projects; leaving eighty-eight projects of a *Civil* character, relating to the internal improvement of the country, the execution of which must lead to an augmentation of national resources, and the postponement of which must equally lead to loss, direct or indirect. After detailing the most important works in the various provinces the despatch insists on the importance of Public Works expenditure being *regular and continuous*. To meet the necessary expenditure the State accepted the necessity of imposing a one per cent. duty on Incomes.

THE INAMS OF THE MADRAS PRESIDENCY.

Supplement to the Calcutta Gazette, 21st November, 1860.

The Madras Government transmits to the Secretary of State for India a condensed account of the proceedings of the Inam department at the expiration of a year from the commencement of its operations. The settlement was nearly completed in the Godavery and Kistna Collectorates, comprising the late District of Rajahmundry, Masulipatam, and Guntoor. Operations have recently commenced in Nellore, Madras, North Arcot, and Cuddapah. Bellary and Kurnool, to which Districts one or two Deputy Collectors have already proceeded, will also be immediately occupied throughout by the members of the Commission. The Provinces thus taken in hand comprise more than one-half of the Presidency as regards Inams.

The subjoined Statement exhibits the actual results attained from September 1859 to August 1860:—

Particulars.	Number of Titles confirmed.	Extent in acres.	Assessment.	Existing Jodi.	Additional Quit-rent newly imposed.	Additional Quit-rent, not agreed to.
Total of previous and present months ...						
Total of Devadayem and Dharmadayem grants, confirmed on service tenures ...	4,244	59,166	98,430-15	2,671-3	2,313-7	...
Total of personal grants enfranchised by payment of Quit-rent ...	49,449	3,65,445	5,99,393-8	64,173-6	75,622-2	...
Voluntary ... 30283						
Compulsory 19,166						
Personal grants not enfranchised, and confirmed on present tenures ...	509	11,260	14,820-12	813-14	...	1,941-6
Grand Total ...	54,202	4,35,871	7,12,645-0	67,650-7	77,935-9	1,941-6
		No.	Quit-rent redeemed.	Amount paid in redemption.		
Number of cases redeemed		193	348	6,960		

68,191 claims were decided by the Deputy Collectors, giving an average of 5,682 cases per month, exclusive of Village Service Inams recorded by them. The number of cases already confirmed in the Commissioner's Office is 54,202, comprising an extent of 4,35,871 acres, assessable at Rupees 7,12,645, and already charged with a Jodi of Rupees 67,658. The permanent annual addition made to the Revenues of Government, in the shape of additional Quit-rent, stipulated to be paid for enfranchisement is, in round numbers, nearly Rupees 80,000; whilst the cost of the Commission during the period under notice may be roughly estimated at Rupees 1,10,000. The *personal* grants enfranchised, from which the additional Quit-rent is mostly

derivable, bear an estimated value of six lakhs of Rupees, upon which the Quit-rent charged, inclusive of the Jodi already paid, is Rupees 1,40,000 or 23½ per cent. The personal grants confirmed on their present restricted tenures, owing to the unwillingness of the holders to enfranchise them, are only 509, or one per cent. A very small portion of the Quit-rent has been redeemed owing to causes already explained.

The future strength of the Commission, as recently recommended for the sanction of Government, will stand as follows:—

	Amount per annum. Rs.
Salary and allowance of the Commissioner, ...	32,940
Ditto of two Special Assistants, ...	14,400
Ditto of sixteen Deputy Collectors, ...	72,480
Establishment of Commissioner and Special Assistants,	32,400
Establishment of Deputy Collectors, ...	20,076
Mileage and Contingencies, ...	14,000
Total ...	1,86,296

With this agency it is expected that the Inam investigation of the whole Presidency will be completed in little more than two years more; and the total cost of the Commission, it is calculated, will be covered by one year's additional Revenue permanently secured to the State.

RE-ARRANGEMENT

OF SUB-DIVISIONS IN BENGAL.

Supplement to Calcutta Gazette, 28th November, 1860.

THE Sub-Divisional system is one that has grown up under the pressure of circumstances. The first Sub-Division was created at Khoolnah in Jessore, and none of those first created were placed with any intentional reference to what would be the best position when a complete and thorough system of Sub-Divisions should be generally established; for no such complete and thorough system was originally contemplated, or at least none such was then thought practically attainable. Sub-Divisions were placed (as was the case with the first Sub-Division created) where perhaps some man of influence and power happened to reside, who misused his position; or in the centre of some distant part of an unusually extensive District; considera-

tions which have either no permanence in themselves, or cease to tell when an adequate number of Sub-Divisions is constituted. Hence arises the necessity, in an arrangement intended to be permanent, of not treating every existing Sub-Divisional Station, without exception, as a fixture. On the other hand some of the older Sub-Divisions are constituted in large towns or marts, places of intrinsic and permanent importance; and such positions are in their nature fixed.

The re-adjustment of the old and the placing of the new Sub-Divisions in the Nuddea Division have been undertaken with the above considerations in mind. In communication with the Commissioner of Nuddea, the Lieutenant Governor fixed upon those places which appeared to be in themselves best suited to form the Head-Quarters of a Sub-Division, without any regard to the position and area of the Thannahs around them. As it was impossible to carry out the new arrangements without interfering with the arbitrary boundaries of Districts, it was proposed to ask the sanction of the Government of India for the transfer of all the country South-West of the great Rivers Ganges and Goraee, within the Khooshtea and Commercolly Sub-Divisions, and now part of the Zillah of Rajshahye, from that Zillah to the Zillahs of Nuddea and Jessore. The tract in question is now under the Pubna Magistracy; but will fall under the Magistracies of Nuddea and Jessore.

The following is the result of the arrangements made with regard to the Nuddea Division.

The Districts of the Nuddea Division, with the Dowlutpore, Ghadoodiah, and parts of the Khooshtea, Khoksa, and Pangsa Thannahs of the District of Pubna, will be formed into eighteen Main Sub-Divisions, whose Head-Quarters will be at the following places:—

1. Khooshtea, on the Ganges and Railroad.
2. Mehirpore.
3. Jenaidah, on the Nobogunga.
4. Chooadanga, on the Railroad.
5. KISHNAGHUR (Sudder Station.)
6. Magoorah, on the Nobogunga.
7. Kotchandpore, whence will be a Metalled Road to the Railroad, and whence there is a Road to Jessore.
8. Narail, whence Baboo Haronath Rai is about munificently to make a raised Road to Jessore.
9. JESSORE (Sudder Station.)
10. Bongong, on the Imperial Metalled Road to be made from Calcutta to Jessore, whence also a Road will be made to the Railroad.

11. Rangahat, on the Railroad.
12. Khoolnah, on the Main Channel of Eastern navigation, whence also is a Road to Jessore.
13. Shatkhirah.
14. Basirhaut.
15. BARASET.
16. ALIPORE (Sudder Station.)
17. Port Mutlah (now Bareepore,) whence a Road and Railroad to Calcutta.
18. Diamond Harbour, whence a Road to Calcutta.

The above places are at an average distance of about twenty-five miles from each other. Besides the above, the Cantonment Joint Magistracies of Barrackpore and Dum-Dum are formed into small Sub-Divisions, embracing some of the surrounding country, and a new Sub-Division is about to be formed in the Suburbs, by posting one of the Alipore Officers at Sealdah.

The result is the distribution, pretty equally over the four Districts, of twenty-one Magisterial Courts; where up to the year 1843 only four such Courts existed; and where so lately as on the 1st of May 1859 only thirteen such Courts existed. All other Commissioners were instructed to prepare a sketch of the similar arrangements they propose to make in their Divisions in the Regulation Provinces.

THE CULTIVATION OF INDIGO IN MOOLTAN.

Supplement to the Calcutta Gazette, 19th December, 1860.

A memorandum on this subject is drawn up by J. H. Morris, Esq. After describing the cultivation and rude mode of manufacture, he says, "notwithstanding this, it is greatly sought after by foreign Merchants, large quantities being yearly exported to Bombay, Cabool, and other places. Assuming the yearly yield to be 8 seers on ordinary indigo lands and the price 50 Rupees per maund, we get the money-value of the grown produce per beegah to be 10 Rupees; therefore the net profit per beegah will be 10 Rupees—5-4=4-12. On the best lands, although the Government Revenue ranges from 12 annas to Rupees 1-8 per beegah, the net profit will be nearly, if not quite, double that above stated. The production of Indigo in Mooltan arose simultaneously with the introduction of Irrigation by inundation canals." The Puttans introduced the cultivation and their

successor, Sawan Mull, greatly extended it by enlarging and extending the canals. He invariably realized the Revenue due from this product in kind, at rates varying from one-third to one-fifth of the gross produce. From one of the Sutlej Canals alone the Dewan realized from nine hundred to one thousand maunds per annum of excellent Indigo, where the Puttan did not get two hundred. Since the accession of British rule in 1849 there has been a gradual falling off in the production, owing to the want of direct Government interest in the production of the crop and neglect of the Inundation canals. From the measurement returns the amount of land in beegahs in each Tehseel under this crop is as follows:—Swaee Sidhoo 44, Mylsee 6642, Mooltan 1290, Shoojahbad 15,560, and Ladran 12,472, giving a total of 47,624 beegahs for the entire District, which, at the rate of one maund for five beegahs, gives the total produce to be 9525 maunds, equal in money value to Rupees 4,76,240, at 50 Rupees a maund. In a postscript Mr. Morris states that he has since ascertained that the amount of Indigo produced in the Mooltan district is nearly double the above.

INCIDENCE OF THE TRADE TAX IN OUDE.

Supplement to the Calcutta Gazette, 26th December, 1860.

THE Chief Commissioner, through his Officiating Secretary, reports to the Government of India on the incidence of the Trade tax in Oude with the exception of the city of Lucknow; to have included it would have disturbed the averages of the Districts.

Average Assessment per head.—The average rate which each one of the 442,952 individuals who have been taxed has been called on to pay is Rupees 1-14-5. The highest demand on any one individual, and he is a Mahajun, has been Rupees 750, which, taking the Tax to be a 3 per cent. tax, represents an income of Rupees 25,000 per annum, or rather more than Rupees 2,000 per mensem. The aggregate sum of Rupees 8,43,714, paid by the 442,952 individuals, represents an aggregate income of Rupees 2,81,23,800, and an average income to each individual of Rupees 63-7-10. It has however been ascertained, that out of the total of 442,952 individuals taxed, 250,055 paid only

one Rupee. Deducting these and the amount of their payments, we have a balance of 192,897 individuals, paying a tax of Rupees 5,93,659. This represents an aggregate income of Rupees 1,97,88,633, and gives each individual an average income of only Rupees 102-9-4 per annum.

The Fairness of Assessment is shewn by the fact that the tax varies in proportion to the land revenue. The percentage of tax on jumma is highest in the Khyrabad Division, which pays nearly 40,000 Rupees tax, more than any other, and this Division is the most lightly assessed of any, and has suffered least from the Insurrection. Relatively to land revenue the tax falls two per cent. heavier on the Seetapoor than on the Hurdui District, and this result is conformable to expectation, for, though the revenue assessment on these two Districts is nearly equal, the latter contains many more Towns and Marts.

Classes Assessed.—The "Khandsay" or sugar manufacturers were always assessed higher than any other class on account of their large profits. The highest sum assessed on any individual of this class is Rupees 338, which represents an income of Rupees 11,300. The Mahajuns, including Bankers, Money Lenders, and Shroffs, have been assessed at the second highest average, but their average is far below that of the "Khandsay," and amounts only to Rupees 5-2-10. The highest sum assessed on any individual throughout the province has been assessed on a Mahajun, and this is Rupees 750. The Cloth Merchants stand next on the list, at an average of Rupees 4-0-1. They vary from Rupees 7-9-5 in Fyzabad to Rupees 2-8-8 in Mahomdee and Baraich. In the three Districts of the Baiswarra Division their averages are Rupees 3-1-1, Rs. 3-3-3, and Rupees 3-10-5. The Thuttairas or Dealers in Copper vessels would appear as a class to have been assessed next highest at an average of Rupees 3-15-7. They vary from Rupees 5-12-11 in Roy Bareilly, to Rupees 2-3-9 in Baraich. The highest sum assessed on any individual of this class was Rs. 40. Goldsmiths and Confectioners were assessed higher than corn-dealers. The latter, however, as might have been expected, contributed the largest amount to the tax, forming next to weavers the most numerous class of tax-payers. Tobacco dealers, including Betel-leaf sellers, were few in number and were assessed at a general average of Rs. 1-10-6. The explanation is that in the country but very few persons deal exclusively in Tobacco. The trade in that article is insufficient to permit a livelihood, and Confectioners, Druggists, and Bunniahs add the retail sale of Tobacco to their regular line of

business. The near approximation of the District averages on the several classes is remarkable. More than half the tax-payers of the province consisted of 5 classes.

Artizans, including Carpenters, Blacksmiths, Iron-smiths, Masons, Sikhligurhs, Kunmugurs, Nalbunds, Munnihars, Rungsaz, Tubluksaz, Kullygurhs, and Kunchgurs.

Provisioners, Butchers, Bakers, Pig Dealers, Sheep Feeders, and Ghosees or Ghee Manufacturers.

Weavers, Ruffoogurs, Joulahas, Kolees, Cheepees, Dyers, Dhoonias, and Cotton Dealers.

Dealers in Leather, Mochis, Shoemakers, and Chamars.

Servants, Barbers, Tailors, Kohars, Bhisties, Coolies, Grass-cutter, and Sweepers.

Their contribution to the tax amounted to Rs. 3,18,187. The Chief Commissioner expresses his conviction that no scheme of taxation could have been less burdensome in amount, less annoying in the mode of enforcement, or have caused less dissatisfaction. He thinks that in rural districts like those of Oude a modified License-tax and not an Income-tax will be the most productive.

The Cost of Assessment was Rs. 13,351, or little more than one per cent. For this extremely small sum Registers of the greatest value, for the purposes of both the Income-tax and the proposed License Act, have been prepared. A sum of Rupees 11,43,714 has been assessed and distributed over 500,000 tax-payers.

Trade Tax Collections in the several Districts of Oudh to the end of September 1860.

Divisions.	Districts.	Amount of Assessment.	1st Instalment.			2nd Instalment.		
			Demand.	Collections.	Balance.	Demand.	Collections.	Balance.
Lucknow	Lucknow City	3,00,000 0 0	1,50,000 0 0	1,50,000 0 0	0 0 0	1,50,000 0 0	87,992 8 0	62,007 8 0
	Ditto Mofussil	61,991 0 0	30,995 8 0	30,995 8 0	0 0 0	30,995 8 0	30,995 8 0	0 0 0
	Oonao ...	65,485 0 0	32,742 8 0	32,295 1 6	447 6 6	32,742 8 0	0 0 0	32,742 8 0
	Durriabad ...	74,122 0 0	37,061 0 0	37,061 0 0	0 0 0	37,061 0 0	36,100 3 0	960 13 0
Baiswara	Roy Bareilly	76,046 0 0	38,023 0 0	38,023 0 0	0 0 0	38,023 0 0	38,023 0 0	0 0 0
	Sultanpore ...	59,904 0 0	29,952 0 0	29,952 0 0	0 0 0	29,952 0 0	2,487 10 6	27,464 5 6
	Pertabgurh ...	55,237 2 6	27,619 0 0	27,619 0 0	0 0 0	27,618 2 6	27,361 10 2	256 8 4
Khyrabad	Seetapore ...	92,677 3 0	46,338 9 6	46,202 9 6	136 0 0	46,338 9 6	38,653 6 2	7,685 3 4
	Hurdui ...	74,947 14 0	37,473 15 0	37,473 15 0	0 0 0	37,473 15 0	7,285 14 0	30,188 1 0
	Mohumdee ...	75,022 6 0	37,507 5 0	37,507 5 0	0 0 0	37,515 1 0	1,740 7 0	35,774 10 0
Baraich ..	Fyzabad ...	93,832 0 0	46,916 0 0	41,380 3 9	5,535 12 3	46,916 0 0	5,395 8 6	41,520 7 6
	Gondah ...	70,882 0 0	35,441 0 0	33,134 6 0	2,306 10 0	35,441 0 0	4,316 4 0	31,124 12 0
	Baraich ...	42,246 0 0	21,123 0 0	19,761 3 0	1,361 13 0	21,123 0 0	37 8 0	21,085 8 0
	Total, Rupees	11,42,392 9 6	5,71,192 13 6	5,61,405 3 9	9,787 9 9	5,71,199 12 0	2,80,389 7 4	2,90,810 4 8

The Governor General considers that the general results and averages brought out go far to prove that the assessments have been fairly made, and that the policy of collecting the tax mainly through the Land-holders has been in this, as well as in other respects, a wise one. He thanks the Chief Commissioner and subordinate officers for the careful manner in which they made the arrangements for levying the tax.

INCIDENCE OF THE TRADE TAX IN LUCKNOW.

Supplement to the Calcutta Gazette, 10th April, 1861.

In a letter to the Government of India, dated 22nd March 1861, the Secretary to the Chief Commissioner of Oude reports on the incidence of the Trade Tax in the city of Lucknow.

Amount of tax and number of tax-payers.—The lump sum was fixed at 3 lakhs, but was afterwards reduced to Rs. 2,69,880. The number of tax-payers was about 60,510. The number of Licenses given was 51,743, which means that so many persons were separately rated and made responsible for the payment of quotas, while 8,767 more were contributors. The average amount of the tax was Rs. 4-7-4. Reckoning 4½ persons to each house, the population of the city is 340,744, of which the number of males is estimated at 1,83,831 and of these 80,000 are adults.

Classes of Tax-payers.—The same classification of trades was adopted as in the districts, but several trades not in the districts were brought under the 26 headings, such as makers and sellers of Brocade, Gold and Silver Tissue, of Braidings, of Tinsel Garlands, Pickles, Soap, Carpets, Tallow Chandlers, Stone Cutters and Seal Engravers, makers of Mirrors, Spectacles, and Hookahs, Cloth Crimpers, Brokers, Commission Agents, &c. The city averages on each class were almost always higher than those in the districts.

Amount and Expense of Collection.—Up to date Rs. 2,37,164 were collected out of Rs. 2,69,880. Of the balance of Rs. 32,716 the sum of Rs. 14,402 is pronounced irrecoverable. The expense of collection was Rs. 6,090 to the end of December. It is estimated that Rs. 600 more will be expended.

Coercive Processes.—The Report remarks:—"owing to a combination of adverse circumstances which need not be described here, but which are well known to his Excellency, much unfounded clamor was raised against the proceedings of the Lucknow Au-

thorities in connection with this measure; it might be well that the number of complaints against the Tax, and the exact amount of pressure exerted for its realization should be generally known.

Number of Petitions of Complaint	323
Number of persons represented by the complaints	495
Number of Petitions disposed of	317
Number pending	6
Number of cases in Column 1 in which reduction or remission of demand was granted	178

The Tabular Statement will show the number of Petitions preferred and how they were disposed of. Four only were complaints of oppression and not one of them amounted to a real case of oppression. All the rest were complaints of over-assessment. The complaints are few, but they are sufficient to show that there was nothing to prevent parties from complaining if they felt themselves aggrieved. The second Table shows the number and nature of coercive processes put in force. Rupees 1,50,000 were collected before any orders to attach property was issued.

No. of Tax-payers.	Arrests made.		No. of cases of attachment of personal property of defaulters.	Remarks.
	No. of persons arrested.	Period for which they were kept in detention.		
60,510	57	1	13	
	9	2		
	5	3		
	1	4		
	3	5		
	2	6		In no case was the defaulter's property brought to sale.
	5	7		
		8		
		9		
	82	31		

COMMISSARIAT EXPENDITURE.

Supplement to the Calcutta Gazette, 2nd February, 1861.

THE total Commissariat expenditure of 1858-59 was for all India upwards of £6,730,000. This has been closely approached by the expenditure of 1859-60, which was £6,470,000, and the expenditure of the current year will also appear excessively high, not owing entirely to the actual charges of the year, but partly to the settlement of arrear charges of former years. To lead to economy in expenditure the President in Council resolved to relieve the Commissariat Department from bearing the entire responsibility of this large miscellaneous expenditure, and to place on those who originate the demands the responsibility for the extent of their requisitions, thereby confining the responsibility of the Commissariat Department to disbursements proper to those specific services for which the Commissary General directly incurs expenditure on account of his own Department, and to the rates at which the demands of other Departments are met. The expenditure incurred on account of supplies to other Departments, as well as the payments made by the Commissariat for supplies directly procured by other Departments, will hereafter be exhibited separately in the accounts. Thus the responsibility for charges for supplies incurred by the Commissary General for other Departments, will be equitably distributed between the Commissariat Department and the Officers who make the demand.

EXPENDITURE ON INDIAN RAILWAYS.

Supplement to the Calcutta Gazette, 23rd February, 1861.

IN November 1860, the previous restriction of the amount of Railway expenditure in India for the year 1860-61 to £4,750,000, conveyed by Despatch No. 110, of 10th July 1860, was withdrawn, and it was laid down that operations should not be delayed on those sections of lines which are advancing towards completion, or which the Government of India may consider of primary importance. On 22nd February 1861 the Governor General in Council again took the question into serious consideration with a view to ascertain what sections come within the above description, so that in case of capital not being forthcoming for all, such sections might receive a preference. The restriction having been withdrawn the expenditure for the year ending 31st April will be about £6,000,000 instead of £4,750,000. On 31st December 1860 the situation was:—

Total estimated amount of Capital required	...	54,600,000
Total amount of Capital guaranteed	...	39,666,300
Ditto ditto ditto paid up	...	32,547,540
Ditto ditto ditto expended	...	31,186,404

The expenditure is now going on at the rate of rather more than £8,000,000 a year, viz., about £2,250,000 in England and £6,000,000 in India. Should the Home Government decide on proceeding uninterruptedly with the whole of the Railways sanctioned, it will require an expenditure in India of from £5,000,000 to £6.000,000 a year for each of the next three or four years. If it is impossible to provide this lines or sections already far advanced should be completed, and new works or sections on which little progress has been made should not be carried out. The works may thus be divided into two classes. Upon the following lines, the progress made has been such that the idea of suspending them could not be entertained unless upon the gravest emergency :—

CLASS I.

LINES.	Estimated Capital in excess of that spent up to 15th November 1860* required to complete the several lines.
	£
East Indian.—Main line from Calcutta to Delhi, with Singarrun Branch and Burrakur Extension (Raneegunge)	4,790,681
Madras.—Main line from Madras to Beypore and Bangalore Branch	559,964
Great Indian Peninsula.—Bombay to Sholapore	
Do. do. do. Bhosawul Junction...	
Do. do. Bhosawul to { Hurdah towards Jubbulpoor (?) ... / Oomrawuttee towards Nagpore ... }	4,182,508
Sind Railway, ...	201,513
Indus Flotilla	88,300
Punjab.—Mooltan and Umritsur	1,596,685
Bombay, Baroda and Central India.—Bombay to Ahmedabad	1,081,000
Eastern Bengal (right bank of Ganges) ...	822,225
Calcutta and South-Eastern	58,736
Great Southern of India.—Negapatam to Trichinopoly	231,709
Total ...	£13,613,321

* The total expenditure of guaranteed Capital up to that date was £30,802,767.

The following lines are either not commenced or have made so little progress that no serious loss would ensue from their suspension beyond that of the retardation of the benefits of Railway communication:—

CLASS II.

LINES.	Estimated Capital in excess of that spent up to 15th November 1860, required to complete the several lines.
	£
East Indian.—Jubbulpoor Line, Allahabad to Jubbulpoor	1,805,170
Madras.—Bellary Line Arconum Junction to Moodgul	2,984,072
Great Indian Peninsula.—Sholapoor to Moodgul ...	1,500,000
Great Indian peninsula.—Hurdah to Jubbulpoor ...	1,764,000
Great Indian Peninsula.—Oomrawuttee to Nagpoor (?)	774,000
Punjab.—Umritsur to Delhi	2,850,000
Total ...	£11,677,242

Her Majesty's Secretary of State has been addressed with a view to ascertain the extent to which the Government of India may rely on being supplied with funds for the prosecution of the Railways of the three Presidencies for the next year or two. Meanwhile Government has taken measures to prevent their being committed to any further liabilities or expenditure upon the lines or sections of lines referred to, which are in a position now to be suspended without material injury to the works already in progress. And the several Local Governments have therefore been instructed to issue the most positive orders to their Consulting Engineers at once to step in and direct any such alteration in construction of buildings as may, in the opinion of those Governments, tend to carry out the primary object of opening each line at the smallest possible expense, and totally regardless of appearance.

DACOITY IN BENGAL.

1859.

Bengal Records, No. XXXIV.

On the 26th April 1860 the Commissioner of the Burdwan Division submits to Government the report of Mr. Jackson, Dacoity Commissioner, for the year 1859. The following table shews the number of dacoities known to have been committed for four years:—

District.	1856.	1857.	1858.	1859.
24-Pergunnahs ...	3	0	1	5
Howrah	3	3	1	2
Baraset	5	5	0	5
Hooghly	41	30	27	25
Burdwan	12	18	20	13
Nuddea	8	15	15	9
Jessore	62	31	15	4
Moorshedabad ...	65	50	29	25
Pubnah	19	24	0	12
Furreedpore ...	1	2	6	1
Midnapore	18	15	15	18
Bancoorah	24	29	10	19
Beerbhoom	31	19	51	33
	292	241	190	171

Many of the dacoities committed in the Hooghly district are committed by persons who come from Burdwan. Domes and other low caste Hindoos take service as Paiks or Durwans with some of the Landholders of the district, join one of the local gangs and commit dacoity with them. They seem to prefer such places for their residence as are within easy reach of the railway in order that they may be able to escape arrest when they get into trouble. Two approvers were obtained to a new gang in the Bansberia Thannah, whose evidence will probably lead to the arrest of a number of the gang. "The apparent decrease in the number of dacoities reported in the Jehanabad sub-division arises from the fact that a large number are con-

cealed. In fact in all the cases that come from that part of the district, the parties plundered appeared to use their utmost exertions to obtain the escape of the dacoits."

A notorious dacoit named Thackoordass Dome was arrested in the Burdwan district. He confessed to 43 dacoities. He practised dacoity as a trade from 1828 to 1859, a period of 32 years and was instrumental in the plunder of property to the value of Rs. 7,000. Notwithstanding that he was seven times arrested for dacoity he was never once punished. He was once convicted in the Sessions Court in the year 1849 but he appealed and was released by the Sudder Court in a few months.

Captain Boddam reports of the Bancoorah district that the absence of any decrease in dacoity is to be attributed to the formation of new gangs of dacoits who have been released by the Nizamut, to the total impunity enjoyed by the purchasers of stolen property, against whom, as the law now stands, no proceedings can be successfully taken, and to the conduct of the native landholders generally, who not only allow notorious budmashes to reside unmolested on their estates, but protect them whenever they are in difficulty and receive in many instances a share in the plunder. He refers to the town of Rajgaon as an instance of this. This place, within two miles of Bancoorah, is almost entirely occupied by Thuggeedars and their agents many of whom occupy large brick houses. It is a matter of notoriety and openly talked of by all the inhabitants and residents of Bancoorah, and yet the Police and all the agency of our laws cannot act against these receivers.

Statistics.—The number of cases of dacoity during the last year was 35 less than the previous year; while the amount of property taken amounted to about one-third of that taken in 1858. The total number of gang robberies was 464, and the value of property taken Rupees 1,59,067-10-4, of which Rupees 9,851-7-9 was recovered. Of 1,885 dacoits brought to trial before the Magistrate, 296 men were convicted, and 265 were released by the Sessions Judge, and 238 men were pending. The remainder were released by Magistrates.

Office Work.—In the English office 569 letters and reports were written, 93 calendars prepared in duplicate, 210 bills and statements prepared and registered, 160 warrants and 210 descriptive rolls and statements prepared, and 12 detailed confessions translated. In the Bengalee office 373 witnesses, and defendants' depo-

sitions were recorded, 3,250 roobukarees, orders and warrants were prepared and issued, 679 perwannahs written and served, and 210 old records were inspected.

Approvers.—There were 114 approvers, resident with their families, at Hooghly, at the close of the year. Six approvers were transported for breaking the conditions of their pardon, and 2 absconded. The approvers appear to have been quiet and orderly, the only complaint against them being that their cattle stray on and injure the Indigo grown on the chur in front of the office premises. The steady imposition of a fine in every case in which the delinquent was detected has however reduced the amount of these trespasses, and they seldom occur now. The introduction of work among them has greatly tended to their good behaviour. The pay allowed them is altogether insufficient for the maintenance of their families, most of whom reside in the parahs, and consequently they are very glad to obtain permission to work outside. Many of them are in comfortable circumstances, which encourages the new hands to follow their example, and employment during the day keeps them out of mischief. There were at Midnapore 77 approvers, at Jessore 36 and at Moorshedabad 25.

School.—The school was much neglected during the year. The number of children fell from 49 at the commencement to 36 at its close. In the 1st class of 5 boys, who were mentioned as meritorious, one was an approver's son and in the 2nd class two.

The following Table shews how the prisoners were disposed of—

Officers and Total Number of Prisoners.			Dacoity Commissioner's or Deputy Magistrate's Office.								Session Judge's Court.									Nizamut Court.							
			Committed.	Sentenced by Dacoity Commissioner or Deputy Magistrate.	Released.	Died.	Absconded.	Sent to other Districts.	Referred to Sudder in Budmashee cases.	Pending.	Referred to Sessions.		Referred to Nizamut.	Acquitted.	Term of imprisonment.	Died.	Budmashee cases.	Acquitted in ditto.	Pending in ditto.	Absconded.	Pending trial.	Received on reference.		Transported.	Acquitted.	Security.	Term of imprisonment.	Died.	Absconded.	Pending trial.
Dacoity Commissioner ...	for 1858 ...	5									for 1858	30									for 1858	2							
	for 1859 ...	81									for 1859	57									for 1859	33							
		86	57	5	5	4	0	5	6	2		87	33	20	19	3	2	0	0	0	10		35	27	1	0	1	0	0	6
Chundersekhur Roy, Deputy Magistrate ...	for 1858 ...	9									for 1858	32									for 1858	10							
	for 1859 ...	86									for 1859	80									for 1859	57							
		95	77	3	4	0	0	2	3	6		112	57	8	22	3	7	1	0	0	14		67	44	4	0	1	1	0	17
Gooroochurn Doss, Deputy Magistrate, Jessore ...	for 1858 ...	51																											
	for 1859 ...	76									for 1858	31									for 1858	14							
	Budmashee	27									for 1859	60									for 1859	48							
		154	60	9	47	3	0	1	0	34		91	48	26	10	3	1	0	0	0	3		62	33	18	0	1	3	0	7
Dubeeruddeen Ahmud, Dpty. Magistrate. Moorshedabad	for 1858 ...	18									for 1858	21									for 1858	6							
	for 1859 ...	48									for 1859	39									for 1859	29							
		66	39	0	10	3	0	6	0	8		60	29	6	9	0	0	0	0	0	16		35	25	9	0	1	0	9	0
Captain H. M. Boddam, Asst. Dacoity Comsr., Midnapore ...	for 1858 ...	21									for 1858	10									for 1858	8							
	for 1859 ...	102									for 1859	76									for 1859	44							
		123	76	4	14	0	0	2	0	27		86	44	21	4	0	0	0	0	0	17		52	17	25	0	3	1	0	6
Total ...		524	309	21	80	10	0	16	11	77		436	211	81	64	9	10	1	0	0	60		251	146	57	0	7	5	0	36

MADRAS MEDICAL COLLEGE.

1859-60.

THE report on the Madras Medical College for the year 1859-60 is submitted by Mr. Shaw, the Principal, through the Director of Public Instruction. The conduct of the students was during the previous year very unsatisfactory; this year a great improvement was manifested, owing chiefly to a system of punishment by confinement, &c. which was substituted for the paying of fines. The session commenced on the 1st of September and terminated on the 31st March. The greater part of April was devoted to the examination of the classes The number of students at the commencement of the session was 156, viz.:—

Military students	European and East Indian	87
	Native	53
Stipendiary students		3
Lane scholars	Eurasian	1
	Native	1
Private students	Eurasian and East Indian	11
	Native	0

Two lads were removed from the College by the authority of the Commander-in-Chief.

All the teachers complain of the want of preliminary education in the students that come before them. They should attend the Hospitals for at least two years before they enter the College. This preliminary education may also be looked upon as probationary; during its course a lad finds out whether he likes the profession or not, his superiors become acquainted with his habits and character, and if he be found not likely to make a good public servant he is removed, and is still young enough to revert to some other occupation.

Examinations.—The result of the final examination of the senior military students was that 20 medical apprentices and 21 native medical pupils were declared qualified for employment in the apothecary and dresser grades respectively of the subordinate medical establishment. One Lane scholar, Mr. Lyons, was, after a most searching examination, declared entitled to the diploma, the highest honour the College can bestow.

Class Reports.—The various professors give a generally favourable report of the conduct and attainments of the students. In anatomy the lectures were made, as much as possible, practical demonstrations. This was effected by means of dried preparations,

models, plates, diagrams, and by demonstrations on the living body as well as on dead subjects. The rooms for Practical Anatomy were not vacated by the Civil Architect's workmen until the 15th November, and six weeks were thus lost. The supply of subjects was very limited. The second and third year students were instructed in clinical medicine. Each section was two months in the medical wards. The senior apprentices were occupied in examining and reporting medical cases and the juniors chiefly in compounding medicines. The Medical Practice open to the students in the General Hospital from 1st April 1859 to 30th March 1860, consisted of 1716 cases, of whom 51 died. An hour was devoted to clinical instruction at the bedside every day, instead of as formerly a weekly formal lecture in the College.

A Botanical Garden for the use of the students is much required, and the enlargement of the compound would be a great improvement.

The Primary Medical School.—The annual examination of the Primary Medical School was conducted by three professors of the Medical College who spoke in high terms of the result of the year's work. Much of the success attained was due to the exertions of Dr. Mudge, who receives the thanks of Government for his services. This institution has now ceased to exist as a separate school, and its staff of teachers and pupils have been incorporated with the Medical College.

New System.—Henceforth the Medical College will consist of three departments:—1st, a *Senior Department* for the instruction of young men who have received a fair general education and who desire to obtain the appointment of Sub-Assistant Surgeon, which grade is to be substituted for the present grade of Native Surgeon, or to qualify for a degree in medicine at the Madras University or elsewhere. This course is completed in five years. 2nd, a *Second Department* for the instruction of paid candidates and medical apprentices qualifying for the grade of Assistant Apothecary who are to be admitted into the service as paid or unpaid candidates on the result of a competitive examination. This course is completed in three years. 3rd, a *Third or Junior Department* for the instruction of candidates for the grade of Hospital Assistant, which is to be substituted for the present grade of dresser. This department of the College takes the place of the Primary Medical School. The course is limited to two years. "These changes," says Mr. Arbuthnot, "it may be hoped, will have the effect of removing many of the difficulties which have hitherto encompassed the subject of Medical Education in this Presidency. The abolition of the restric-

tion which limited the appointments corresponding to the Sub-Assistant Surgeoncies in the other Presidencies to persons of pure native birth, cannot fail, by widening the area of competition, to induce a better educated class of persons to qualify for those situations. The same may be said of the Apothecary grade, which has been hitherto confined to Europeans and East Indians, but which is now thrown open to Natives and is made accessible to deserving Hospital Assistants. And in regard to the lower grade of Hospital Assistants, as the Dressers will be in future designated, it cannot be doubted that the abandonment of the system, hitherto in force, of attempting to instruct them by means of lectures—a method of instruction which is only suitable to persons of advanced general education and perfectly familiar with the language in which the lectures are delivered—and its supersession by the more humble, but more practical, system of teaching by the method of question and answer, restricting at the same time the studies of the pupils to what is requisite for the efficient performance of the duties which will ordinarily devolve on them, is calculated to furnish a class of subordinates better qualified than those who have hitherto been sent out of the Medical College to the lower situations in the department. It may be expected that under the new system there will be no occasion for such a remark as that made by the Examiners, that though the attainments of the students are sufficient for their prospective duties, they made a very indifferent exhibition when under examination."

THE CALCUTTA POLICE.

1858-59.

On the 30th September 1859 Mr. Wauchope, the Commissioner, submits his report on the work done by the Police in the town of Calcutta during the year 1858-59.

Offences.—The cases of murder were 5 against 9 in 1857-58. In all these cases the conduct of the Police was satisfactory. The last case was that in which a Jewess, Leeah, was found murdered in her bed on the 1st of October 1858. This murder created much interest in Calcutta at the time. There were four cases of manslaughter against the same number the previous year. The number of cases of cutting and wounding was 16 against 12. The number of convictions obtained was 13 against 7. Stabbing by

sailors from ships was of rare occurrence. Care was taken to let all ships' crews know that carrying clasp knives in the streets of Calcutta is prohibited. Of burglaries there were 17 against 27. The property stolen amounted to Rs. 2136 and the result as to recovery was very unsatisfactory. The number of thefts was nearly the same as the previous year, and the property recovered considerably less. Domestic thefts were of frequent occurrence but the articles stolen were seldom recovered. The town is filled with petty pawnbrokers, all ready to receive stolen goods, and when once property is in their hands there is little hope of recovery.

No less than 6244 persons were convicted of being drunken and riotous against 1,999 in 1855. The increase of drunkenness in Calcutta has been three-fold in little more than two years, and almost entirely among the native population. There has been a great diminution in drunkenness and riot among European seamen and others during the last few years. This may partly be attributed to the order passed in 1857 by which all liquor shops are compelled to close at 5 P. M. instead of 9 P. M. During the year Rs. 2950 were paid as rewards to the Police and others who rendered good service in the detection of crime.

General Result.—During the year 18,442 persons were brought up before the Magistrates, of whom 13,029 were convicted, 270 committed, and 5,017 acquitted by them; 178 persons were convicted and 90 acquitted in the Supreme Court, and 127 released by the Commissioner of Police without trial. These numbers do not include members of the Police Force brought up and fined by the Commissioner for neglect of duty. Property valued at Rupees 1,32,015-12-6 was stolen, of which, Rupees 48,294-6-10 value, or considerably more than one-third was recovered.

Mortality.—The following are the reported deaths among the native population during the year.

HINDOOS.	
Small Pox, ...	58.
Cholera, ...	3,407
Other Diseases, ...	7,007
Total, ...	10,472
MAHOMEDANS.	
Small Pox, ...	26
Cholera, ...	1,363
Other Diseases, ...	2,221
Total, ...	3,610

Accidents.—No less than 177 accidents to persons from being run over by carriages and horses, were brought to the notice of the Police, and 12 persons died in consequence of injuries thus received. 151 cases of death were made over by the Commissioner to the Coroner for investigation. Thirty-three Fires occurred in 1858-59, by which 4 Pucca Houses, 107 Tiled Houses, 476 Thatched Huts, and one Country Boat were destroyed. The five Fire Engines attached to the Calcutta Police are unfitted for a large town, and one or two are in consequence made useless at every fire.

Memorandum of Cases Disposed of.

	Felonies.	Misdemeanors.	Total.
Commissioner of Police, ...	21	3100	3121
Southern Division Magistrate, ...	1109	1864	2973
Northern Division Magistrate, ...	1199	2057	3256
Coroner, ...	7	.....	7
Admiralty cases, ...	.....	.....	.....
Conservancy cases by the Commissioner of Police under Act XIV. of 1856, ...	.....	606	606
Total, ...	2336	7627	9963

THE BENGAL SALT DEPARTMENT.

1858-59.

On the 13th of February 1860 Mr. E. T. Trevor, Secretary to the Board of Revenue, submits his report on the administration of the Salt Department in Bengal and Orissa for the year ending 30th September 1859. The quantities of Government and pri-

vate Salt in store in Bengal at the commencement of 1858-59 as compared with the previous year, were as follows:—

	1st Oct. 1857.			1st Oct. 1858.		
	Mds.	*S.*	*C.*	*Mds.*	*S.*	*C.*
At the *Ghats*, or larger Government Depôts ...	30,24,300	36	2	34,43,295	2	9
In the Govt. Retail *Golahs*, or Ware-houses, ...	32,267	31	7	36,355	30	14
In Bond at Sulkea (Sea imported private Salt,)	4,47,015	11	5	1,95,392	2	0
In store (Home manufactured Excisé Salt,) ...	18,790	14	12	46,184	30	0
Total, ...	35,22,374	13	10	37,21,227	25	7

The Salt brought into store and imported was:—

	1857-58.			1858-59.		
	Mds.	*S.*	*C.*	*Mds.*	*S.*	*C.*
In the larger Government Depôts of Bengal ...	38,24,356	19	13	37,39,114	30	12
Importations by Sea, on private account ...	34,06,832	0	0	29,04,900	0	0
Excised Home Salt	30,936	25	4	24,657	20	0
Total	72,62,125	5	1	66,68,672	10	12

The Sales were:—

	1857-58.			1858-59.		
	Mds.	*S.*	*C.*	*Mds.*	*S.*	*C.*
Government Salt, by wholesale, under Rowanas	28,95,828	0	0	33,39,920	0	0
Ditto Ditto, by retail, at reduced prices ...	3,23,251	9	10¼	3,24,013	36	7½
Private Salt, imported by Sea	36,62,243	14	11	31,89,384	35	7
Ditto ditto, Home made under Excise Licence	11,560	0	0	20,500	0	0
Total	68,92,882	24	5¼	68,73,818	31	14½

The out-turns were :—

		Taidads.	Out-turns.			Excess.	Deficiency.		
		Mds.	*Mds.*	*S.*	*C.*	*Mds.*	*Mds.*	*S.*	*C.*
Hidgellee	...	10,50,000	9,15,131	25	0		1,34,868	15	0
Tumlook	...	9,00,000	7,73,757	36	12		1,26,242	3	4
Chittagong	...	6,00,000	5,66,526	31	¼		33,473	8	15⅜
Balasore (Boiled,	...	7,00,000	6,75,798	30	0		24,201	10	0
Cuttack	...	4,50,000	2,90,096	20	0		1,59,903	20	0
Pooree)	...	300,000	2,86,898	25	0		13,101	15	0
Ditto (Bay	...	4,00,000	6,93,448	20	0	2,93,448¼			
Total	...	44,00,000	42,01,658	27	12¼	2,93,448¼	4,91,789	32	3¾

Keeping the *taidads* at a high standard stimulates exertion.

The quantity of Salt carried away by the Railway during the twelve months from October 1858 to September 1859 was 2,92,634 maunds which exceeded the quantity taken the previous year by 71,000 maunds. The quantity of illicit salt seized within the Chowkey limits of the Cuttack Agencies, amounted to 344 maunds. There was an increase in cases of infraction of the salt laws in Balasore and a decrease in the remaining Orissa Agencies, especially in Pooree. The decrease in Cuttack is accounted for by the improvement in Chowkey and Golah Sales.

Finance.—The Income of the year beginning 1st October 1858 and ending 30th September 1859 was Rs. 1,23,69,506; the expenditure was Rs. 39,08,734, leaving a net revenue of Rs. 84,60,772.

Imported Salt.—During the last three months of 1859 or the 1st quarter of the current salt year the Imports amounted to 10,41,259 maunds and during the whole year 1858-59 to 29,04,900, being a decrease of 5,01,932.

Supply for 1859-60.—At the close of the year 1858-59, or on the 1st October 1859 the salt in store in Bengal amounted to 36,59,036 maunds. This added to the above 10½ lakhs gives about 47,00,000 maunds. The probable out-turn of the Bengal Agencies, (22 lakhs of maunds,) and the imports from Orissa, (12 lakhs of maunds,) for the current season may be set down at 34,00,000 maunds. The Arracan Salt available for Chittagong will not be over-estimated at a lakh of maunds, and the Bay Salt from Madras will make up another lakh and a half. These, added to the foregoing items, would raise the available quantity to 81½ lakhs of maunds.

And if the expected imports of private salt by sea be taken at the moderate estimate of 15 lakhs of maunds for the 9 months to 30th September 1860, the current year's provision will be found to be 96,50,000 maunds.

Remarks by Government.—In reviewing this report the Government of Bengal remark that there has been a gradual decrease in the consumption of Salt in the Lower Provinces. "In 1856-57 duty was levied in Bengal on maunds 69,40,083; in 1857-58 on maunds 68,92,882; and in 1858-59 on maunds 68,73,818. If allowance be made for the year of mutiny in the North Western Provinces, the addition of the Western Salt passing Allahabad, will not alter this result. The increase had been previously continuous. The Board are requested to state the reason which, in their opinion, has decreased consumption even in the highly prosperous year 1858-59. During the year somewhat less than one year's consumption, *viz.* 66,68,672 was brought into store; so that the stock in hand had been somewhat diminished, but still stood on the 1st October 1859 at maunds 36,59,036, which being more than half a year's consumption fulfils the condition that that quantity of Salt shall at all times be in store. The Board estimate the supply of Salt from the Agencies during the current year at maunds 34,00,000, and from importations on private account at maunds 25,00,000, and on account of Government about 2½ lakhs; that is to say the entire supply for the year is about 98 lakhs of maunds. Taking the consumption at maunds 68½ lakhs, there will be only 29 lakhs in store at the end of the year, which will be below the prescribed quantity. Private importations may supply this deficiency, but this cannot be calculated upon. It is incumbent on the Board to make every exertion to increase the supply of Native Salt. This can easily and advantageously be done in the natural way, as has already been suggested to them; namely by offering higher prices to the manufacturers in those Agencies where Salt is now most cheaply produced. This will have the further advantage of reducing the run upon the Salts of those Agencies, which happen to be the best in quality as well as the cheapest in price—an unnatural and inconvenient state of things. The Lieutenant-Governor believes that there has been no rise in the price of Salt allowed to the Molunghees, corresponding to the late great rise in the prices of all other produce. Under such an unnatural arrangement it is not surprising that the production of the best Salt is so limited as to be a source of inconvenience to the public and to the department. The Board will lose no time in reporting the measures they may take to remedy this evil."

THE BENGAL SALT DEPARTMENT.

1859-60.

On the 15th January 1861 Mr. Devereux, Officiating Junior Secretary to the Board of Revenue, submits his report on the administration of the Salt Department during the year ending 30th September 1860. The Salt in store at the beginning of the year was, as compared with the previous year, as follows :—

Places of Storage.	1st October 1858.			1st October 1859.		
	Mds.	*S.*	*C.*	*Mds.*	*S.*	*C.*
Ghats or larger Government Depôts, ...	34,43,295	2	9	36,07,740	28	3
Retail *Golahs*, or smaller Government Ware-houses, ...	36,355	30	14	37,638	7	0
In Bond at Sulkea and Howrah (Sea imported), ...	1,95,392	2	0	46,817	38	0
In Excise Golahs, (Home made Salt,)	46,184	30	0	13,657	20	0
Total	37,21,227	25	7	37,05,854	13	3

The salt brought into store and imported was :—

	1858-59.			1859-60.		
	Mds.	*S.*	*C.*	*Mds.*	*S.*	*C.*
Into larger Government Depôts of Bengal, ...	37,39,114	30	12	36,02,750	3	15
Into this Port by Sea (private Salt), ...	29,04,900	0	0	31,92,147	23	15½
Into Excise Golahs, ...	24,657	20	0	19,360	0	0
Total ...	66,68,672	0	0	68,14,257	27	14½

The sales amounted to 79,69,095 maunds which is an increase of nearly 11 lakhs of maunds of salt, of which nearly all was fully taxed Government salt. The incidence of the sales during the year was principally on the Hidgellee salt, of which the

quantity sold showed an increase of 7 lakhs of maunds over the preceding year. The proceeds of the sales amounted to Rs. 2,55,05,361, against Rs. 1,85,14,008 the previous year, shewing an excess of nearly 70 lakhs of rupees in favour of 1859-60. This does not include the local sales in Orissa amounting to Rs. 12,72,105 in 1858-59 and Rs. 11,70,274 in 1859-60. The increase is mainly owing to the higher tax, which, however, did not operate during the entire twelvemonth under report.

Decreased consumption explained.—The report replies to the remarks of the Lieutenant Governor of Bengal with reference to decreased consumption. The following statement will show that the increase of sales of salt previous to 1856-57 had not been continuous, as in 1854-55 the sales were less by 3 lakhs of maunds than in the year of the mutiny. This was owing apparently to the timing of the sales which threw nearly all the Chittagong and a great part of the Hidgellee Salt into the market before 1st October 1854, which happened to be then adopted as the proper commencement of the year in the Salt Department. But, whatever the true explanation of the deficiency, the falling off was entirely in the sale of Rowanah Salt. Secondly, that in the highly prosperous year 1858-59, there was an increased sale of Salt in comparison with that of 1855-56, and but for diminished importations, there would have been a similar increase over that of 1856-57.

SALES of Salt in Bengal, whether Home made or imported, Government or private, by wholesale or retail, for 20 years ending with 1859-60.

	Years.	Government Salt, Bengal, Wholesale, Sales, Retail sales.			Imported Salt.			Excise Salt.	North Western Salt paying additional duty.			Total Consumption.		
		Mds.	S.	C.	Mds.	S.	C.	Mds.	Mds.	S.	C.	Mds.	S.	C.
Commercial.	1841-42 ...	39,59,336	0	0	8,26,967	0	0	6,12,691	0	0	0	53,98,994	0	0
	1842-43 ...	38,70,635	0	0	8,36,798	0	0	8,92,740	0	0	0	56,00,173	0	0
	1843-44 ...	39,07,624	0	0	8,29,032	0	0	9,67,013	0	0	0	57,03,669	0	0
	1844-45 ...	41,50,346	0	0	8,64,390	0	0	9,70,595	0	0	0	59,85,331	0	0
	1845-46 ...	33,99,275	0	0	9,15,221	0	0	15,81,986	0	0	0	58,96,482	0	0
	1846-47 ...	37,11,446	0	0	9,95,712	0	0	14,66,744	0	0	0	61,73,902	0	0
	1847-48 ...	39,88,541	0	0	9,18,846	0	0	16,15,084	0	0	0	65,26,246	0	0
	1848-49 ...	33,16,637	0	0	9,26,018	0	0	16,10,256	0	0	16,450	2,12,892	35	5	60,83,253	35	5
	1849-50 ...	33,83,833	0	0	10,87,623	0	0	21,03,218	0	0	23,630	7,45,083	13	0	73,43,387	13	0
	1850-51 ...	28,25,100	0	0	8,50,149	0	0	26,01,033	0	0	35,000	4,96,574	5	1¼	68,07,856	5	1¼
	1851-52 ...	22,38,702	0	0	2,73,724	0	0	29,26,865	0	0	18,600	5,74,439	0	0	60,32,330	0	0
	1852-53 ...	31,25,129	0	0	3,62,691	0	0	24,94,332	0	0	19,600	6,45,407	0	0	66,47,159	0	0
	1853-54 ...	37,89,913	0	0	3,12,756	0	0	15,61,055	0	0	43,550	6,63,168	0	0	63,70,442	0	0
	So far the Board's Annual Reports embraced the *Commercial* year, October to September. The following figures are from Reports relating to the *Salt* year from May to April.													
	1853-54 ...	47,15,657	0	0	3,28,407	7	2	15,34,876	13	8	40,450	6,85,332	1	13¼	73,04,722	22	7¼
	1854-55 ...	28,07,410	10	0	3,28,775	34	3½	27,51,880	28	2	24,500	7,40,153	11	2¾	66,52,720	3	8
	1855-56 ...	24,93,428	24	0¼	3,05,887	24	4¼	38,34,730	33	9½	53,033	6,37,644	20	0¾	73,24,724	22	5¾
	1856-57 ...	31,46,694	5	0	3,07,305	38	6¼	34,54,320	24	15	31,763	6,00,964	32	2½	75,41,048	20	7¾
	1857-58 ...	28,95,828	0	0	3,23,251	9	10¼	36,62,243	14	11	11,560	47,746	27	8	69,40,629	1	13¼
	1858-59 ...	33,39,920	0	0	3,24,013	36	7½	31,89,384	35	0	20,500	5,95,670	34	0	74,69,489	25	7½
	1859-60 ...	46,37,007½	0	0	3,49,979	10	5	29,37,708	28	12	44,400	4,63,974	8	13½	84,33,069	27	14½

Production, &c.—The total quantity of salt produced during the year was 44,82,344 maunds, which is 82,344 in excess of the *Taidads* and 2,80,686 in excess of the previous year. In Hidgellee the out-turn fell very far short of the quantity prescribed and did not even reach the figure attained to in the preceding year. The quantity of excise salt manufactured was Mds. 25,455, being the produce of the works in Saugor Island. The local sales in Cuttack reached Mds. 644,269, being Mds. 42,307 less than the previous year.

The total quantity of salt released after attachment was 12,351 Mds., as compared with 13,971 the previous year. There were 1529 convictions, and 2,411 persons convicted. The quantity of salt transported by rail was 3,33,971 maunds, being 71,000 maunds more than the preceding year.

Import.—The following table shews a net increase of 2,87,247-23-15½ maunds in the quantities of salt imported by sea from different countries.

Names of Places.	1858-59.			1859-60.		
	Mds.	S.	C.	Mds.	S.	C.
Great Britain	16,13,917	0	0	17,63,299	16	5
America, North	0	0	0	28,596	37	12
France	65,851	0	0	40,926	23	15½
Sweden	0	0	0	21,874	38	0
Spain	44,246	0	0	0	0	0
Mauritius	272	0	0	0	0	0
Red Sea and Arabian Sea ...	5,10,290	0	0	5,61,099	32	6½
Bombay	3,35,920	0	0	3,93,478	30	2½
Ceylon	21,138	0	0	0	0	0
Laccadive Islands	0	0	0	50	0	0
Madras	3,11,322	0	0	3,65,286	5	6
China	0	0	0	17,535	0	0
Prince of Wales' Island ...	1,944	0	0	0	0	0
Total	29,04,900	0	0	31,92,147	23	15½

ADMINISTRATION OF BOMBAY.

1859-60.

JUDICIAL—*Civil Justice.*—The number of *original* suits presented for decision in all the courts and the number decided was:—

ORIGINAL SUITS.	FOR ADJUDICATION DURING THE YEAR.				DECIDED ON MERITS.				ARREARS.			
	1858.	1859.	Increase.	Decrease.	1858.	1859.	Increase.	Decrease.	1858.	1859.	Increase.	Decrease.
Civil Courts	1,55,406	1,77,145	21,739	...	86,720	90,720	4,000	...	28,747	45,352	16,605	...
Agency Courts	704	765	61	...	326	410	84	...	238	187	...	51
Revenue Courts	2,123	2,640	517	...	1,009	1,220	211	...	353	673	320	...
	1,58,233	1,80,550	22,317	...	88,055	92,350	4,295	...	29,338	46,212	16,874	...

The number of *appeals* made and decided was—

APPEALS.	FOR ADJUDICATION DURING THE YEAR.				DECIDED ON MERITS.				ARREARS.			
	1858.	1859.	Increase.	Decrease.	1858.	1859.	Increase.	Decrease.	1858.	1859.	Increase.	Decrease.
Civil Courts	11,947	10,077	...	1,870	4,556	4,514	...	42	2,453	1,924	...	529
Agency Courts	16	21	5	...	9	11	2	...	5	7	2	...
Revenue Courts	437	441	4	...	155	167	12	...	156	201	45	...
	12,400	10,539	...	1,861	4,720	4,692	...	28	2,614	2,132	...	482

The increase of business in the courts of original jurisdiction was great. Although 4,000 more suits were decided in 1859 than in the preceding year, the arrears were so heavy that the assistance of extra Moonsiffs was granted. The arrears in the appellate files were diminished by one-fifth.

The original suits were of the following description :—

	1855.	1856.	1857.	1858.	1859.
Connected with Land Rent ...	115	124	238	184	150
Otherwise connected with Land ...	2,217	2,660	2,816	3,131	3,218
Connected with Debts, Wages, &c.	102,903	105,130	100,584	115,082	122,030
Ditto Caste, Religion, &c. ...	252	284	245	145	126
Ditto Indigo, Sugar, Silk, &c. ...	1,444	2,149	1,776	2,021	2,122
Total ...	106,931	110,347	105,659	120,563	127,646

Of the whole 92,146 were decided in favour of Plaintiff and 35,500 in favour of Defendant. Their average duration was as follows :—

	1855.			1856.			1857.			1858.			1859.		
	Years.	Months.	Days.	Years.	Months.	Days.	Years.	Months.	Days.	Years.	Months.	Days.	Years.	Months.	Days.
Sudder Dewanny Adawlut	2	6	3	2	9	28	2	1	20	0	5	16	0	5	27
District and City Judges	1	1	10	0	8	10	1	2	20	1	0	17	0	6	27
Subordinate and Additional Judges ..	3	8	1	3	9	13	0	0	0	0	10	29	1	8	19
Assistant Judges ...	1	6	13	1	6	4	1	6	0	0	9	24	0	6	10
Principal Sudder Ameens	0	3	15	0	4	11	0	4	6	0	3	10	0	3	24
Sudder Ameens ...	0	4	12	0	3	12	0	3	16	0	2	26	0	3	12
Moonsiffs	0	7	5	0	8	13	0	3	9	0	2	23	0	2	19

Their total value was Rs. 43,89,376. There were 698 debtors in jail for a total sum of Rs 75,387-4-11 all at the instance of individuals.

In the *Agents'* Courts of original jurisdiction there were 765 cases of which 45 were decided by European and 530 by native judges. There were decided in favour of plaintiff 400 and in favour of defendant 175. Of the whole 4 were connected with land rent, 20 otherwise connected with land, 549 with debts, wages, &c.; 1 with religion, and 1 with manufactures. Their average duration was :—

	1855.			1856.			1857.			1858.			1859.		
	Years.	Months.	Days.	Years.	Months.	Days.	Years.	Months.	Days.	Years.	Months.	Days.	Years.	Months.	Days.
Sudder Dewanny Adawlut	2	10	6	5	9	28	2	3	27	0	0	0	1	2	3
Agents	1	2	0	1	5	12	1	6	15	2	5	17	1	0	6
Assistant Agents ..	1	6	14	2	5	13	2	3	16	1	11	12	1	11	25
Jagheerdars	1	2	16	1	10	1	0	4	26	0	4	8	0	9	6

Their total value was Rs. 1,17,088.

In the *Revenue* Courts there were 2,640 cases of which 1,930 were decided by natives, 1 by a European and 1 by a punchayet. There were 3 special appeals to Collectors, 1 to an Assistant Collector, and 236 from punchayets to mamlutdars. Of the 1,932 decided, 1,854 were connected with land rent, and 78 otherwise connected with land, 1128 were decided in favour of plaintiff, and 736 of defendant. Before the Sudder Dewanny Adawlut their average duration was 3 months and 22 days; before Collectors 9 months and 11 days; before Assistant Collectors 5 months and 28 days, and before mamlutdars 3 months and 6 days. The total value of suits depending was Rs. 30,582, the number of debtors in jail was 11 for Rs. 409-6-2.

STATEMENT showing the Number of Original Suits of different value decided by the Principal Sudder Ameens, Sudder Ameens, and Moonsiffs of the Bombay Presidency in the year 1859.

	Above 10,000 Rupees.	From 5,000 to 10,000 Rupees.	From 2,500 to 5,000 Rupees.	From 1,000 to 2,500 Rupees.	From 500 to 1,000 Rupees	From 300 to 500 Rupees.	From 100 to 300 Rupees.	From 50 to 100 Rupees.	From 10 to 50 Rupees.	Not exceeding 10 Rupees.	Remarks.
Principal Sudder Ameens...	16	12	19	37	86	135	589	745	3,786	1,600	
Sudder Ameens	...	7	13	19	48	120	642	1,083	6,528	3,269	
Moonsiffs ...	...	...	45	107	241	532	3,626	5,759	41,324	20,177	

In *Sind* the following work was done in the courts of original jurisdiction :—

	Filed and Arrears.	Decided.	Balance.
Kurrachee	3,323	3,233	90
Hyderabad	3,737	3,628	109
Shikarpore	2,849	2,757	92
Frontier	354	348	6
Total ...	10,263	9,966	297

This statement shows an increase of 658 in the number of decisions, and a decrease of 214 in the number of cases remaining for disposal.

The subjoined table exhibits the work performed by the Appellate Courts :—

	Filed and Arrears.	Decided.	Balance.
Kurrachee	116	97	19
Hyderabad	126	75	51
Shikarpore	87	45	42
Frontier	0	0	0
Total	329	217	112

The result of the Administration of Civil Justice in Sind, during the year 1859, is, that suits involving two lakhs and a half of Rupees were decided at a cost to the suitors of about $5\frac{3}{4}$ per cent., and to Government of about 2,000 Rupees.

Court of Small Causes.—Compared with the preceding year, the results were—

Increase in suits instituted ...	Rs.	478	0	0
Increase in judgments given ...	,,	594	0	0
Increase in Fees credited to Government	,,	8,147	15	10
The receipts of the Court exceeded the disbursements by a sum of ...	,,	25,714	4	4

Criminal Justice.—The returns shew a decrease in the number of offenders apprehended and brought to trial. Of those brought to trial more than three-fourths were convicted:—

Year.	Offenders apprehended and brought to trial.	Convicted and sentenced to				Total.	Acquitted.	Confined as Insane.	Died before trial.	Total.	Grand Total.
		Flogging, Fine, &c.	Imprisonment.	Transportation.	Death.						
1858	55,573	36,072	6,496	51	30	42,649	12,922	2	...	12,924	55,573
1859	49,165	30,529	5,812	24	24	36,389	12,776	...	...	12,776	49,165
Increase ...	.....	.....	.....	...	...	.....	.....	...	...	.....	.....
Decrease ...	6,408	5,543	684	27	6	6,260	146	2	...	148	6,408

The Government, drew the attention of the Session Judges to the propriety of restricting sentences of solitary imprisonment to the limit of one month of continuous duration, and to one month in every six of ordinary confinement.

The average duration of cases referred to the Nizamut Adawlut was 79 days against 103 the previous year. On 31st December there were 3,072 prisoners in jail and 178 deaths in the year, so large a number owing to the unhealthy condition of the Khandeish jail.

In *Sind* 12,951 persons were convicted of crimes and 7,061 acquitted, a total of 20,012 shewing a decrease for 1858 of 966. The result is favorable as to the gross number of offences; but in the more serious crimes the balance is about equal, a diminution in murder being counterbalanced by an increase of culpable homicide and rape. In the *Island of Bombay* there was a decrease in offences of 3,870 cases and in the number of prisoners of 7,283. There were no gang or highway robberies, and only 3 burglaries in all, of which the perpetrators were apprehended, convicted, and punished. Of the stolen property 34 per cent. was recovered. The decrease in the vice of drunkenness, in a large sea-port town like Bombay, is worthy of remark. The number of persons charged with this offence were

In 1857	...	...	... 3,400
„ 1858	...	...	... 2,378
„ 1859	..	...	... 1,670

Revenue.—*Land-tax.*—In the northern Division the actual realizations on account of land revenue were 96,23,000 Rupees, or more than in the preceding year, by 494,000 Rupees. The sayer revenue realized amounted to 12,35,000 Rupees, being in excess of the collections for the previous year by 2,67,000 Rupees. In the southern Division the results were

Southern Division.

1859-60	...	...	Rs.	1,02,09,000
1858-59	...	..	„	95,95,000
			Rs.	6,14,000

In the Island of Bombay the revenue from the land was 72,766 Rupees, being the highest amount realized during a period of ten years. The revenue from the Toddy Tree Tax amounted to 80,564 Rupees—this was for the abkaree year, closing with October. During the year an increase of the Tax on the trees was ordered, and an improved system of management adopted; a new Act (XVII. of 1859) was also passed.

This led to a strike amongst the people concerned in the trade, which lasted out the year.

The stamp revenue exceeded that of several previous years; the amount realized being 38,128 Rupees. The rain was seasonable, and the crops good.

The total land revenue of Sind, for the year 1859-60, amounted to 29,98,000 Rupees, against 29,15,000 Rupees for the preceding year. The land revenue of Sind is altogether dependent on the inundation from the Indus which this year was good. In the Larkhana district the revenue was double what it was six years previously. The sayer revenue of Sind, for 1859-60, is stated at 2,38,000 Rupees against 2,38,600 Rupees for the year preceding it. The following *Inam* claims were disposed of in the Collectorates in which the Act was in force.

	Villages.	*Shares of Villages.*	*Pieces of Inland.*
During 1858-59	303	(Umuls) 86	1,678
Ditto 1859-60	130	17	1,151

2,669 claims to cash allowances were decided. The following statement shows how the Inam Commission decisions, and the decisions regarding cash allowances throughout the Presidency, affected claimants.

DECISIONS UNDER THE INAM ACT.

	No.	*Value Rupees.*
Declared permanent ...	298	22,673
Ditto hereditary ...	295	92,406
Continuable for one or more lives	432	26,468.
At once assessed ...	308	12,808

DECISIONS REGARDING CASH ALLOWANCES.

	No.	*Value Rupees.*
Declared permanent ...	79	4,779
Ditto hereditary ...	511	24,593
Continued for one or more lives	160	18,924
At once discontinued ...	1,317	23,868
Continued provisionally ...	80	4,230
Discontinued by commutation	121	6,363

The expenditure during the year amounted to 1,81,188 Rupees.

During the year a scheme was considered for a summary settlement of claims to alienated revenue, the principal feature of which is, that in return for a light annual quit-rent, and a duty on succession, the holders of Inam lands obtain the right to transfer these holdings, and have all defects in their titles cured. This measure may fairly be expected to prove beneficial equally to the State as to the people.

Customs, Salt and Opium.—There was an increase of 71¾ per cent. in the customs on imports by sea owing to the increased duties under Acts VII. of 1859 and X. of 1860.

Imports.

1859–60	...	Rs. 95,57,020
1858–59	...	„ 55,65,498
Increase in 1859–60	...	Rs. 39,91,522

There was a great falling off in export customs.

Exports.

1859–60	...	Rs. 6,51,934
1858–59	...	„ 7,52,028
Decrease in 1859–60	...	Rs. 1,00,094

Frontier Duties.

1859–60	...	Rs. 1,84,607
1858–59	...	„ 1,29,595
Increase in 1859–60	...	Rs. 55,012

Land Customs.

1859–60	...	Rs. 49,521
1858–59	...	„ 43,707
Increase in 1859–60	...	Rs. 5,814

Salt.

1859–60	...	Rs. 34,70,286
1858–59	...	„ 25,21,062
Increase in 1859–60	...	Rs. 9,49,224

Opium.

		Chests.
1858–59	...	36,111¾
1859–60	...	32,506½
Decrease in 1859–60	...	3,605¼

Actual Realisations.

1858–59	...	Rs. 1,44,44,764
1859–60	...	„ 1,53,62,700
Increase in 1859–60	...	Rs. 9,17,936

The actual realisations show, as compared with those of the previous year, an increase of 9,17,936 Rupees, consequent on the rate of the pass fees per chest (of 141½ lbs.) having been raised from 400 Rupees to 500 Rupees from the 1st July 1859. The increase in the Salt excise was owing to the rise of duty in August 1859 from 12 annas to 1 rupee per maund.

In *Sind* the customs receipts at Kurrachee amounted to 3,84,314 Rupees on imports, and on exports to 1,01,936 Rupees. The receipts from other sources, such as Port dues, Fishing and Harbour Craft Licenses, &c., amounted to 38,355 Rupees.

AGRICULTURE.—The cotton experimental department in Ahmedabad was condemned as a costly failure. Six cases of fraudulent packing of cotton before shipment were brought to light during 1859-60, one occurred in Khandeish, one in Surat, and four in Broach; of these one only was discharged for want of proof. Measures were set on foot to ascertain whether machinery on the roller churka principle could not be produced in England, so as to operate successfully upon Guzerat cotton. In the Hyderabad Collectorate of Sind the experiment in exotic cotton was not favourable but there was an increase of cultivation of country cotton, to the extent of 16,000 beegahs, and the gross produce exceeded that of the former year by 36,576 maunds (80 lbs.).

Little linseed is now cultivated in Sind, as the profits appear to be insufficient. A large quantity of other descriptions of oil seeds is produced in the inundated lands bordering on the river. They require little care, and are more remunerative than linseed.

During the year the cultivation of indigo in Upper Sind, is described as having been decidedly successful. The area under crop was 5,469 beegahs, being 3,342 beegahs in excess of the previous year. The selling price of the manufactured article is stated to have been very satisfactory, being Rupees 75-4 for first sort, Rupees 67-1 for second sort, and Rupees 58-5 for third sort, per maund. The climate and soil of Sind are reported to be admirably suited for the successful cultivation of imphee or African jowaree.

The net revenues from Forests in Sind shew an increase of Rs. 17,000, those from the rest of the presidency amounted to Rs. 1,78,000.

The Revenue Survey, &c.—The survey continued at work in Ahmedabad, Kaira, Surat, Tanna and Khandeish. It was extended to the Hyderabad Assigned Districts. The state of the talookdaree villages in Guzerat having engaged at-

tention during the year, Mr. J. B. Peile was appointed to enquire into their circumstances, with a view to legislation in their behalf, on a basis similar to that of the "Encumbered Estates Commission." Another important measure, introduced during the year under review, was the order directing the levy of one anna on every rupee of land revenue as a local fund for the improvement of internal communications. The rule was applicable only as the assessment comes under revision, and had not been applied to Districts already settled.

FINANCIAL.—

DISBURSEMENTS.		RECEIPTS.	
Political Department ...	46,29,000	General Department ...	25,85,000
General ditto ...	59,34,000	Judicial ditto ...	5,20,000
Judicial ditto ...	1,52,60,000	Revenue ditto ...	5,42,83,000
Revenue ditto ...	1,18,59,000	Marine ditto ...	2,83,000
Marine ditto ...	44,82,000	Military ditto ...	16,49,000
Military ditto ...	3,16,68,000	Tributes ...	6,22,000
Public Works ditto ...	59,91,000	Public Works Department ...	7,83,000
Interest ...	9,46,000	Interest on Bank of Bombay Shares ...	27,000
Profit and Loss ...	3,23,000	Interest ...	1,12,000
Total, Rupees	8,10,92,000	Profit and Loss ...	6,73,000
	6,15,37,000		
Deficit, Rupees	1,95,55,000	Total, Rupees	6,15,37,000

The *actual* deficit is assumed at Rs. 78,24,060. The Bombay mint received a sum of Rs. 4,18,81,615-7-4 to be coined of which only Rs. 1,97,50,150-5 was from Government. The mint duty, re-melting and refining charges amounted to Rs. 8,98,714-15-5. There was sent to the General Treasury in coins Rs. 4,05,04,049-8.

There was an increase in the civil establishments both in the Bombay Presidency and Sind, amounting, respectively, to Rs. 5,84,069-11-1, and 63,979 rupees. There was a decrease of Rs. 55,574-1-8 in the expenditure debitable to the Government of India, owing chiefly to the transfer of the Aden troop of Horse from the Bombay establishment. In the charges of the Marine Department a permanent annual increase of Rs. 2,24,392-10-0 took place, owing to vessels having been commissioned and brought into service, to the augmentation of establishments and to the grant of pensions. The contingent charges in barrack, bazar, and certain other departments, were less than in the preceding year by Rs. 2,34,716-8-2.

EDUCATION.—As the restriction of expenditure continued there was no extension of operations except where the fee funds of the Schools allowed. The cheap books published by the

department achieved popularity. Matriculation Examinations of candidates for teacherships were for the first time held by the Departmental Officers at Bombay and Poona. During the year Mr. Howard, the Director, submitted to Government a scheme for the examination of candidates for the public service, and certain recommendations for the legal training of young civil servants intended for the Judicial Department. The University held its first Matriculation Examination in October 1859 : 126 candidates were examined. Of these, 119 were from Government Institutions, and 8 from private schools : 21 candidates passed, all from Government Institutions. A second Matriculation Examination was held in March 1860 : 42 candidates appeared, of whom 5 came from private Institutions : 14 passed, all from the Government Colleges.

Four Institutions applied for affiliation to the University, *viz.* :—

Elphinstone College, Bombay.
Grant Medical College, Bombay.
Government Law School, Bombay.
Poona College, Poona.

ENGLISH SCHOOLS.

	1858-59.		1859-60.	
	Number of Schools.	Number of Scholars.	Number of Schools.	Number of Scholars.
Northern Division ...	13*	1,127	11	1,127
Central Ditto ...	9	1,506	9	1,591
Southern Ditto ...	3	242	3	266
Total	25	2,875	23	2,984

* Including Political Agencies.

VERNACULAR SCHOOLS.

	1858 59.		1859-60.	
	Number of Schools.	Number of Scholars.	Number of Schools.	Number of Scholars.
Northern Division ...	190*	11,413	209	13,780
Central Ditto ...	212	8,613	216	8,532
Southern Ditto ...	77	5,667	85	5,767
Total	479	25,693	510	28,079

* Including Political Agencies.

VERNACULAR SCHOOLS IN SIND.

COLLECTORATES.	Government.	Approximate daily number of Pupils.	Partly supported by Government.	Approximate daily number of Pupils.	Municipal.	Approximate daily number of Pupils.	Local Funds.	Approximate daily number of Pupils.	Jageer.	Approximate daily number of Pupils.	Indigenous.	Approximate daily number of Pupils.
Kurrachee	2	55	4	313	0	0	3	56	0	0	178	1,826
Hyderabad	7	231	1	170	1	43	11	410	2	40	226	3,084
Shikarpore	0	0	10	609	1	54	2	51	4	88	259	3,992
Total	9	286	15	1,083	2	97	16	517	6	128	663	8,852

PUBLIC WORKS.—The expenditure of the department was as follows:—

Roads and bridges	2,26,703	0	0
Docks, dockyard offices, and buildings for marine purposes	26,982	0	0
Light-houses and beacons	1,626	0	0
Reclamation of land from the sea ...	4,210	0	0
Canals, irrigational bundaras, tanks, and wells	1,42,546	0	0
Fortifications, magazines, and military store-houses, &c.	1,66,241	0	0
Barracks and buildings connected therewith	6,67,285	0	0
Hospitals	70,875	0	0
Churches, burial grounds, &c.	16,123	0	0
Jails and buildings for police purposes ...	19,661	0	0
Miscellaneous, government houses, cutcherries, travellers' bungalows, dhurmsalas, ferries, post offices, telegraph stations, &c., inclusive of repairs	10,22,718	0	0
Total Rupees ...	23,64,965	0	0

In *Sind* the Expenditure was:—

	Collectorates in Sind.			Total.
	Kurrachee.	Hyderabad.	Shikarpore.	
New Works	1,29,790	1,62,123	1,57,784	4,49,697
Repairs (including canal clearances)	1,44,266	2,74,728	2,44,356	6,63,350
Establishments	1,14,795	1,07,865	91,124	3,13,784
Total, Rupees ...	3,88,851	5,44,716	4,93,264	14,26,831

Railway.—There were 195 miles of line open of the *G. I. P. Company*, on 1st May 1859. A further length of 50½ miles was opened on the south-east line, to Barsee Road Station, on 24th October 1859; a further length of 28 miles to Mohol, on the 2nd January 1860, and it is now finished to Sholapore, 20 miles, on 1st May 1860. On the branch line from Bhosawul to Nagpoor, 263 miles, the earthwork was commenced in February. On the main line to Jubbulpore, the works were commenced in March. Besides these lines of Railway under construction, surveys were made of the extension of the south-east main line, to meet the Madras line, and of the branch line to Indore. The capital expended in India in the official year amounted to Rupees 87,29,067-0-4.

ABSTRACT of Receipts and Expenditure of G. I. P. Railway for the year 1859.

	Miles open.	Passengers. Numbers. 1st Class.	2nd Class.	3rd Class.	Passengers. Receipts. 1st Class. Rs.	2nd Class. Rs.	3rd Class. Rs.	Miscellaneous. Rs.	Total. Rs.
January to June	... 194·8	5968·5	66210·5	5,35,506	23,668	53,128	2,76,316	67,647	4,20,759
July to December	... 213·7	5571	78248·5	5,19,103	24,491	56,605	2,74,599	67,171	4,22,866

	Goods. Weight. Railway Material. Tons.	Merchandise. Tons.	Receipts. Railway Material. Rs.	Merchandise. Rs.	Miscellaneous. Rs.	Total. Rs.	Total Receipts, Passengers and Goods. Rs.	Miles Run. Passengers. Miles.	Goods. Miles.	Total. Miles.
January to June	52,676	74,264	2,06,123	3,24,134	3,296	5,34,090	9,55,709*	1,19,642	1,36,136	2,55,778
July to December	45,412	43,256	2,06,172	2,28,900	7,603	4,44,913	8,72,819†	1,28,806	1,08,377	2,37,183

* Including Rupees 860 Receipts for Rent, &c.
† Ditto Rupees 5,040 ditto ditto.

ABSTRACT of Receipts and Expenditure of G. I. P. Railway for the year 1859.

	Expenditure.						Percentage of Expenditure on Gross Receipts.	Gross Cost of open Line.	Net Revenue.		Equivalent to per cent. per annum.		
	Locomotive Charges.	Coaching Charges.	Merchandise Charges.	Maintenance of Way.	General Charges.	Total.							
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.		£	Rs.	£	£	*s.*	*d.*
January to June ...	2,21,270	53,323	64,156	49,585	38,118	4,26,452	44·62	1,699,034	5,29,257	48,515	5	14	3
July to December...	2,62,190	58,818	57,834	72,473	52,409	5,03,724	57·61	1,975,627	3,69,095	33,834	3	8	6

By the *Bombay, Baroda and Central India Railway Company* the works were pushed on vigorously for 117⅛ miles between the Veeturnee river and Surat. The total length of line open to the public was 29 miles, the length under construction 275 miles; of this 60 miles could be opened (with a break at the Nerbudda) by June 1861, if the works were pushed on energetically, and 115 miles more by June 1862. The remaining 100 miles would not be finished till the year 1863. The expenditure on capital account amounted to Rupees 38,37,512-10-5. The traffic receipts on the 29 miles open from Amrolie to Unclesur from 12th February to 30th April 1860, were Rs. 151-5-8.

The *Sind Railway*, the Chief Engineer expected, would be ready for traffic on 1st January 1861. The Engine Mileage Returns of the last nine months of 1859-60 were as follows:—

	Miles.	KURRACHEE.
Passengers	578	For the conveyance of Railway Officers or high Government Officials.
Goods	13,821½	For the conveyance of material, water, &c.
Shunting	852	
Piloting	18,213	
Total mileage during the 9 months, ...	33,464½	

Fuel stations were allotted to the *Indus Flotilla Company* which was arranged for by the London Board as follows:—

7 Passenger steamers.
7 Accommodation flats.
6 Towing steamers.
33 Cargo barges.

CONSERVANCY.—Five towns were brought under the operations of Act XXVI. of 1860, and it was suspended in one. The revenue of the Kurrachee Municipality amounted to 79,661 Rs., and the expenditure to 73,436 Rupees. The revenue is derived chiefly by duties on grain and other articles brought into the town for consumption. The Commissioner had a balance of 24,500 Rupees in Government Paper, which has been accumulated with a view to commencing the proposed water-works for supplying Kurrachee with water. In the presidency town there was a balance in hand on 31st December 1858 of Rs. 2,35,200. With this the receipts of 1859 were Rs. 10,30,214 and the expenditure Rs. 7,30,720, leaving a balance of Rs. 2,99,493.

ECCLESIASTICAL.—The establishment was permanently fixed at 30 Chaplains and Assistant Chaplains. The want of Church accommodation at Nusseerabad, where there is no Church, was much felt. The Bishop of the Diocese made a tour in Sind, visiting the Stations of Kurrachee, Kotree, Sukkur, Shikarpore, Jacobabad, and Hyderabad. The Bishop of the Diocese also visited Mooltan at the desire of the Bishop of Calcutta.

POLITICAL.—*Kattyawar.*—The principal event in 1859 was the insurrection of the Waghers of Okamundel, a district belonging to His Highness the Gaekwar. With this exception loyalty to the British Government was preserved throughout the whole Peninsula, and several Chiefs, specially the Iam of Noanuggur and the Nawab of Joonaghur, afforded the aid of

their Sebundees for the coercion of the rebels. In Jaitpoor another instance occurred of the fraud so frequently attempted in Kattyawar, the pretended pregnancy of the widow of a childless Chief for the purpose of diverting the succession from the collateral heirs. The widow of Jugga Wala, a principal shareholder in Jaitpoor, after her husband's death, announced her pregnancy. The spuriousness of the heir was clearly proved. The same fraud was attempted in other two minor States. A change in the administration of Joonaghur was effected during the year, and some improvements in the general management introduced; but "no decided approximation to prosperity can be exhibited by this State, while the Nawab remains under the influence of Chaitra Boo, a slave woman of remarkable ability and address, who exercises a paramount influence in the Durbar."

Kutch.—The Regency appointed under the Presidency of the Political Agent, on the retirement of the Raja from the duties of his station, administered the affairs of Kutch, throughout the year 1859-60, with eminent success. The Rao died, after a long and successful reign, and was succeeded by his eldest son Prince Ruwajee.

Rewakanta.—No part of Bombay suffered so much from the events of 1857-58. Much, however, was done by firmness, conciliation, and good judgment towards the restoration of permanent tranquillity.

Rajpeepla.—By his good Government the Rajah shewed that the confidence of Government, when it restored to him the direct management of his affairs, after an attachment of upwards of three years, was well merited. That he might secure the succession from all dispute, seeing that it was endangered by the Thakoor of Gopalpoora, the Rajah abdicated in favour of his son. The tranquillity of Rajpeepla, and probably of all Guzerat, was seriously threatened towards the close of 1859, by the Bheels of Sagbara, a dependency of Rajpeepla. The Political Agent effected a settlement of their disputes and tranquillity was maintained.

Narrokote.—The Naikra insurrection which had so devastated this district in 1858, was resumed in the early part of 1859, by two influential Naicks, named Kewul and Roopa, and it was not until the end of May that tranquillity was finally restored. An attempt was made to reclaim the Naikras during the year, and some progress was made in finding peaceful employment for them.

Deogud Barreah.—The Rajah of Barreah was suspected of having behaved with considerable duplicity during the conjunctures of 1858. The Raja being a weak man in the hands

of designing karbharees, a change in the administration was deemed absolutely necessary, and Captain Buckle proceeded in May 1859, to introduce order into this ill-governed State. The management was, with the Rajah's assent, placed in the hands of a trustworthy Minister, and his Mukranee mercenaries were dismissed. At the same time careful arrangements were made for preventing this State being rendered in future, what it had been, an asylum for the lawless and the compromised. An attempt made by the Rajah to free himself from the new Minister was repressed by the agent.

States under the Agent at Surat.—Ramdeojee Wijadeojee, the Rajah of Dhurumpoor, died at the close of 1859, and was succeeded by his son Narundeojee. A settlement of the claims preferred against the late Rajah by certain creditors, was effected during the past year by arbitration, and a considerable portion of the award paid. In October 1859, the Nawab of Sucheen, a portion of whose estate had, for many years, been attached for the payment of the claims of his numerous creditors, was again placed in possession of all his villages, he having consented to pay an annual sum of Rupees 35,000, until his debts should be fully liquidated.

Southern Muratha Country.—The young Chief of *Sanglee*, the representative of the senior branch of the Putwurdhun family, attained the age of twenty-one years, on the 12th of July and was on that day invested with the charge of his estate. The Chief of *Meeruj* having behaved with loyalty during the year 1857-58, received in November 1859 permission to adopt a son. The expenses incurred by the British Government in suppressing the rising of the Beruds at Hulgullee in this State in 1857, were duly recovered in 1859 from the Rajah's Treasury. The condition of *Moodhole*, which was managed during the Raja's minority by the British Government, was most prosperous, and a considerable surplus of revenue over expenditure is annually realized.

The Chief of *Ramdoorg* having resisted the temptations of his brother, the Chief of Nurgoond, to join in the rebellion against the British Government in 1857, received, as a reward for his loyalty, the permission of Her Majesty's Government to adopt an heir.

The principal event in connection with the province of *Sind*, during the year under report, was the outbreak in the Nuggur Parkur Territory. On 15th April 1859 a large number of coolies attacked the Telegraph office at Nuggur Parkur and plundered the Treasury. The origin of the outbreak was the loss of power suffered by two or three petty chiefs or zemin-

dars on the introduction of a system of regular administration. The transition had been but nominally felt when the people of Parkur first came under British rule: old influences continued and public interests suffered, but with time a firmer administration supervened, and had the Rana been a man of stronger mind or had his advisers been men of integrity, and not short-sighted selfish schemers, it is more than probable he would have accepted his position, and acknowledged contentment to be his true policy. Punishment speedily followed the folly of his offence, and the example was severe. Besides the trial and imprisonment, Jagheers were confiscated, and families reduced from comparative affluence to want, and worse than all to the proud Rajpoot, the attempt to maintain unauthorized power was the means of crushing the prestige of legitimate influence. Colonel Evans commanded a small force against the outlaws. The Rana fled to the Hills north of Mount Aboo, but 5 ringleaders were seized and condemned to various terms of imprisonment.

Aden.—The Political Resident reported "that for almost the first time since the occupation of Aden by the British, a year has elapsed without any incident worthy of being chronicled." Petty disputes between the tribes themselves occurred, and always will occur, but in none of them were we concerned, and the belligerent parties respected the roads leading to Aden.

Slave Trade.—An order was promulgated for the entire suppression of the Slave Trade between the Turkish possessions in Arabia and Africa. Whether this will be rigidly enforced, remains to be seen; probably not, unless the British Government lends the Turkish authorities its active co-operation. The slave trade at Berbera was unusually brisk, the Somalies selling their own daughters into captivity. Captain Playfair in the *Lady Canning*, effected the capture of 64 slaves, and afterwards 76 were liberated. Not less than eight hundred or one thousand slaves were brought to Berbera for sale; but owing to the steps taken to watch the coast, very few found their way out of the country.

Military.—Attention was directed to the reduction of Military expenditure. The commissariat establishments of carriage were every where largely reduced. The British Troops were reduced to

1 Troop Horse Artillery.
4 Batteries Foot Artillery.
3 Regiments Cavalry.
9 Ditto Infantry.

The standard strength of Native Corps of the Line was reduced to 700 rank and file.

The three extra Battalions of Native Infantry were disbanded, notwithstanding a large reduction of the available Native Force by the detachment of two Corps, each 1,000 strong, to China. A Battalion of Golundauz Artillery was abolished. The Veteran Battalion was disbanded. The Aden Troop of Cavalry, when about to be disbanded, was transferred under the orders of the Government of India for civil employ in Central India. The Southern Mahratta Horse was reduced. The Field Forces in Rajpootana and Malwa were consolidated in one division. This was attended by reduction of staff and field establishments. The Southern Division was converted into a Brigade, causing a considerable reduction of Staff. Many small military posts were abandoned. The number of horses in Cavalry Corps was reduced to 10 per cent. below the strength in men; the absences from sickness and other causes rendering this reduction generally convenient, as well as financially economical. Several Brigade and Station Commands and Staff Officers were reduced. Besides the foregoing, the disbandment of the 3rd Belooch Battalion was to have immediate effect. The removal of one of the Corps of European Cavalry, was provided for, and the entire abolition of the Regular Native Cavalry only awaited sanction. The Government had other and large reductions in view. The harbour defences of Bombay were commenced, the plan of defence consisting of batteries advanced in convenient positions in the harbour, so that a vessel cannot approach near enough to injure the Fort or shipping without encountering, within effective range, the fire of these batteries. The occupation of Okamundel and the fortified towns of Beyt and Dwarka by the Waghers, a wild pirate tribe, whose frequent excesses and resistance of the Gaekwar's authority have, on more than one occasion, demanded British interference, led to a military expedition against this tribe. They escaped from Beyt and Dwarka successively, notwithstanding the measures taken to surround them, and passing into Kattyawar, were eventually attacked in a formidable position in the Burda Hills, by a force under Major A. Honner, with signal success. They dispersed in small parties.

The Bombay Army sent a battery of Royal Artillery, a Regiment of European Infantry, and two Regiments of Native Infantry, to join the force in China. The commissariat department at Bombay was also largely occupied in despatch of horses and mules for the Armstrong batteries sent from England to join that expedition, and in sending baggage, horses, forage, and other supplies.

MEDICAL DEPARTMENT.—New charitable dispensaries were established at Belgaum and Hooblee. The number of applicants for relief exceeded by 10,000 those in the preceding year, or 117,957 against 107,524. This increase was due to the more sickly season of 1858-59, as well as to the growing confidence of the natives in the advantages of European medical institutions.

Northern Division, Patients treated			...	about	36,500
Presidency	,,	,,	,,	... nearly	30,000
Poona	,,	,,	,,	... about	23,000
Sind	,,	,,	,,	... ,,	17,000
Southern	,,	,,	,,	... ,,	10,500

With respect to caste, there were :—

Christians	...	...	... nearly	10,500
Hindoos	...	...	... about	68,000
Mussulmans	...	...	... nearly	29,000
Parsees	...	...	... only	8,000
Other Castes	...	...	... ,,	1,500

or about 9 per cent. Christians ; 58·0 per cent. Hindoos ; 25·0 per cent. Mussulmans ; 7 per cent. Parsees; and 1·0 per cent. other castes.

The total number of patients treated in the civil hospitals was 11,781, but of these nearly 5,000 (4,859) were inmates of the Jamsetjee Jeejeebhoy Hospital alone. The percentage of deaths to treated was 10·7. The number of prisoners in the jails was 6,081, or 541 less than in 1858-59. The number treated in hospital was 8,193 against 9,111 of last year, being in the proportion of 135 to 138 per cent. of sick to treated. The deaths were 259, giving a percentage of 4·3 to strength, and of 3·1 to treated, which are rather higher rates than in 1858-59. Of the police force 53·6 per cent. came under treatment, of whom 1·1 per cent. or 0·6 per cent. of the strength died, showing a very healthy state of the force. The average number confined in the Lunatic Asylum, Bombay, was 214 against 188 the previous year. The daily applicants for relief at the eye infirmary in Bombay averaged 100 during the past year against 77 of 1858-59, whilst the total treated was 1,548 against 1,436 of the former year. The number of persons vaccinated was about 5,000 less than in 1858-59, or 220,428 against 225,403. The decrease took place in the Concan and Southern Deccan Division. The reasons assigned for the falling off are bad health and casualties amongst the operators. In all other parts there was an increase.

		Vaccinated in 1858-59.	1859-60.
1.	Sind Division	47,495	49,441
2.	Concan	46,868	39,266
3.	Western Guzerat	34,348	36,254
4.	Eastern Guzerat	25,100	26,287
5.	Northern Deccan	20,749	21,387
6.	Southern Deccan	25,850	21,354
7.	Rajcote Circle	17,266	18,305
8.	Presidency	7,727	8,134
	Total ...	2,25,403	2,20,428

Botanical Gardens.—That of Dapoorie was organised in 1829, of Hewra in 1857. From the latter there were prepared for Indian hospitals 160 lbs. of the compound extract of Colocynth, 2,200 lbs. of Ground Nut Oil; 6,282 of Castor Oil; 1,570 lbs. of Senna, 100 lbs. in excess of the demand for Taraxacum Extract; 80 lbs. of Hyosciamus Extract; and 6 lbs. of Croton Oil. The value of these medicinal supplies is estimated at Rs. 5,460.

Population of Sind.—There has been no census in Sind since 1856, but it is not supposed there was any great increase of the indigenous population. There was a large influx of Pathans into Kurrachee to avail themselves of the demand for employment. An enterprising Pathan, by name Moorar Khan, expended a lakh of Rupees in extensive irrigational works on the Hubb River, where he received, on favorable terms, a lease of a large tract of waste lands. Bhawul Khan, Chief of the Belooch Hill Tribe of Tinde, also settled on some waste lands near the Munchur Lake. Measures were adopted for keeping in future a Registry of Births and Deaths in the principal towns of the Province.

EUROPEAN LOCAL TROOPS IN INDIA.

Parliamentary Paper, 1860.

On the motion of Colonel Sykes the House of Commons ordered a "return of the number of men of the European Local Troops in India, who have taken their discharge since 1858, in consequence of being refused Bounty, and who were sent to the United Kingdom; the number who were re-enlisted upon

their arrival in the United Kingdom for the Army of the Line, or for the Local European Army in India; together with the number of men who re-enlisted in India, and accompanied the expedition to *China*."

The total number who took their discharge since 1858 in consequence of being refused Bounty and who were sent to the United Kingdom, was 10,116, from the 3 Presidencies. The following table shews the number who re-enlisted on their arrival in England in the British Army.

	1859.		1860.						TOTAL.
	November.	December.	January.	February.	March.	April.	May.	June.	
Enlisted at Head Quarters of Regiments, &c.	5	173	347	104	38	6	6	1	680
In the Recruiting Districts:									
York	0	0	6	5	4	4	3	1	23
Liverpool	1	7	184	49	104	28	15	11	399
Bristol	0	3	34	11	10	18	5	10	91
London	153	81	562	133	88	63	49	51	1,180
North Britain ...	3	7	46	11	29	23	21	5	145
Belfast	0	2	13	3	10	4	0	3	35
Dublin	3	16	47	27	34	24	8	5	164
Cork	0	1	33	16	15	15	8	4	92
TOTAL ...	165	290	1,272	359	332	185	115	91	2,809

The discharged men were not allowed to re-enlist for the Local European Army in India. 119 men re-enlisted in India and accompanied the expedition to China.

	Number.
For the Royal Artillery	38
For the Royal Marines	72
For Her Majesty's 67th Regiment	2
For Her Majesty's 1st Royals (2d Battalion) ...	4
For Her Majesty's 3rd Buffs	1
For Her Majesty's Infantry (regiments not named)...	2
Total Number	119

REPORT ON INDIAN LEGISLATION.

1859-60.

Acts Passed.—The Acts passed during the official year 1859-60 were Acts No. XI. to XXVIII. of 1859, and Nos. I. to XX. of 1860.

Act XI. of 1859 *An Act to improve the law relating to sales of land for arrears of Revenue in the Lower Provinces, under the Bengal Presidency.*

(Introduced on 22nd December 1855, and passed on 30th April 1859).

Act XII. of 1859 *An Act to make better provision for the trial of Pilots at the Presidency of Fort William in Bengal, for breach of duty.*

Act XIII. of 1859 *An Act to provide for the punishment of breaches of Contract by Artificers, Workmen, and Laborers in certain cases.*

This Bill provides for the punishment of breaches of contract on the part of Artificers, Workmen, and Laborers who have received money in advance on account of work which they have contracted to perform. The Bill was introduced at the instance of the Calcutta Trades Association, who complained of the pecuniary loss to which they were subjected by the fraudulent conduct of their workmen in wilfully failing to perform works for which they had received advances in money. The Act authorizes a Magistrate, on complaint of the employer, and on proof of the receipt of an advance and wilful neglect on the part of a workman to fulfil his contract, to order the workman either to return the money advanced, or to perform the

work contracted for as the employer shall require, and on default, to sentence the workman to imprisonment, with hard labor, for a term not exceeding three months. When the workman is ordered to perform the work, security may also be required of him for its due performance.

Act XIV. of 1859 *An Act to provide for the limitation of Suits.*

(Introduced on 7th July 1855, and passed on 30th April 1859.)

Act XV. of 1859 *An Act for granting exclusive privileges to Inventors.*

This is a re-enactment, with modifications, of Act VI. of 1856, which the Court of Directors disallowed as illegal, inasmuch as it had not previously received the sanction of the Crown, and which was consequently repealed by Act IX. of 1857.

Act XVI. of 1859 *An Act to explain Act XXX. of* 1858, *to provide for the administration of the estate and for the payment of the debts of the late Nawab of the Carnatic.*

(Introduced and passed on 18th June 1859.)

Act XVII. of 1859 *An Act to amend the law for the realization of Revenue from Abkaree in the Island of Bombay.*

(Introduced on 2nd, and passed on 16th July 1859.)

Act XVIII. of 1859 *An Act to amend the law relating to Offences declared to be punishable on conviction before a Magistrate.*

(Introduced on 9th, and passed on 23rd July 1859.)

Act XIX. of 1859 *An Act to continue in force until the end of the year* 1859 *Act XXVIII. of* 1857. [*Temporary.*]

(Introduced and passed on 6th August 1859.)

Act XXVIII. of 1857 being about to expire, this Act was passed to continue its operation till the end of the year 1859, in order to allow time for the passing of a law to make that Act perpetual.

Act XX. of 1859 *An Act for the suppression of Outrages in the District of Malabar in the Presidency of Fort St. George.* [*Temporary.*]

This Act is a re-enactment, with certain additions, of Acts XXIII. of 1854 and V. of 1856, which were passed for the suppression of Mopla outrages in Malabar, and the duration of which was limited to the end of 1859. The present Act will continue in force for ten years.

Act XXI. of 1859 *An Act for providing for the exercise of certain powers by the Governor-General during his absence from his Council.* [*Temporary.*]

(Introduced and passed on 3rd September 1859.)

The Act expired on the 9th May 1860.

Act XXII. of 1859 *An Act to amend Act I. of* 1852, *for the consolidation and amendment of the laws relating to the Customs under the Presidency of Bombay.*

(Introduced on 6th August, and passed on 3rd September 1859.)

This Act raises the Customs Duty on salt from twelve annas to 1 Rupee per maund. It also raises the Customs Duty from nine annas to 1 Rupee per gallon on spirits exported from any port in India to any port in the Bombay Presidency, so as to equalize it with the Excise Duty on spirits manufactured in that Presidency, which had lately been raised from nine annas to 1 Rupee per gallon by the Government of Bombay, under the provisions of Act III. of 1852.

Act XXIII. of 1859 *An Act to alter the rates of Duty of Goods imported or exported by land from certain Foreign Territories into or from the Presidencies of Madras and Bombay respectively.*

Act VII. of 1859 having altered the rates of Sea Customs Duties, it became necessary to alter the Land Customs Duties on Goods imported or exported into or from the Madras and Bombay Presidencies respectively, from or into Foreign Settlements on the line of Coast. This Act was therefore passed for the purpose of fixing the Land Customs above referred to at the same rates as the Sea Customs fixed by Act VII. of 1859.

Act XXIV. of 1859 *An Act for the better regulation of the Police within the Territories subject to the Presidency of Fort St. George.*

This Bill was introduced to give legislative sanction to the proposed new system of Police for the Madras Presidency; but at the request of the Government the provision for separating the Executive from the Judicial functions of the European Magistrates was, during the progress of the Bill through the Council, withdrawn.

Act XXV. of 1859 *An Act to prevent the over-crowding of Vessels carrying Native Passengers in the Bay of Bengal.*

Act XXVI. of 1859 *An Act to continue in force for a further period Act XXVIII. of* 1857.

(Introduced and passed on 7th December 1859.)

Act XXVII. of 1859 *An Act to continue in force for a further period Acts XIV. of* 1857, *XVI. of* 1857 *and XVII. of* 1857.

(Introduced and passed on 7th December 1859.)

Act XXVIII. of 1859 *An Act to revive and continue in force for a further period Act XXXIII. of* 1857, *to make further provision relating to Foreigners.*

Act I. of 1860 *An Act to empower the Governor-General in Council to increase the rate of Duty on Salt imported into the North-Western Provinces of the Presidency of Bengal.*

(Introduced on 24th, and passed on 31st December 1859.)

This Act empowers the Governor-General in Council to raise the duty upon salt imported into the North-Western Provinces from 2 Rupees to 3 Rupees per maund, so as to place the discretionary power of the Government of India in respect to such salt on the same footing with the power of that Government in respect to the salt of the Lower Provinces of Bengal.

Act II. of 1860 *An Act to amend the law relating to the Carriage of Passengers by Sea.*

Act III. of 1860 *An Act to empower Sessions Judges to pass sentence in certain cases without reference to the Sudder Court.*

Act IV. of 1860 *An Act to amend Act VIII. of* 1859 *for simplifying the procedure of the Courts of Civil Judicature not established by Royal Charter.*

Act V. of 1860 *An Act to amend Act III. of* 1857, *relating to trespasses by Cattle.*

Act VI. of 1860 *An Act to amend Act XIX. of* 1847, *Articles of War for the Native Army.*

(Introduced on 28th January, and passed on 11th February 1860.)

This Act was passed in a great measure to meet the requirements of the Native Force then about to proceed to China. It empowers the Commander-in-Chief to invest Commanding officers of Regiments with the power of summarily trying all offences against those Articles committed by any person amenable thereto.

Act VII. of 1860 *An Act to enable Joint Stock Banking Companies to be formed on the principle of Limited Liability.*

The object of this Act is to extend to Joint Stock Banking Companies the benefit given by Act XIX. of 1857 to Joint Stock Companies in general.

Act VIII. of 1860 *An Act for regulating the Establishment and Management of Electric Telegraphs in India.*

Act IX. of 1860 *An Act to make provision for the speedy determination of certain disputes between Workmen engaged in Railway and other Public Works, and their employers.*

The Act empowers every local Government to invest a Magistrate or Officer exercising the powers of a Magistrate with authority to decide disputes concerning wages, hire of carriage, or price of work between laborers on public works and their employers; the jurisdiction being limited to cases not exceeding 200 Rupees, and in which the cause of action has arisen within two months.

Act X. of 1860 *An Act to amend Act VII. of* 1859, *to alter the Duties of Customs on Goods imported or exported by Sea.*

(Introduced on 18th February, and passed on 3rd March 1860.)

By Act VII. of 1859 the Import Duty on a considerable number of articles was raised from 5 to 20 per cent. The result having proved to be a falling off in the Revenue, it was considered expedient to reduce the Duty on all those articles to 10 per cent., except tobacco, the Duty on which has been raised to eight annas the seer of unmanufactured, and 1 Rupee the seer of manufactured tobacco. The Duty on cotton thread, twist and yarn has also been raised from 5 to 10 per cent., there appearing no reason why these articles should be imported at a lower rate

of Duty than cotton piece goods. The Act abolishes both Import and Export Duties on wool, flax, hemp, jute, raw hides and skins, and maps, prints, and works of art. It makes the following additions to the Free Import List, *viz.* seeds imported from any public Society for gratuitous distribution, agricultural implements, machinery of all kinds, conveyances and carriages of every description, military and other regulation uniforms and accoutrements when imported for private use by persons in the public service, guano and manures of all kinds. It places tea and coffee on the Free Export List, and raises to 2 Rupees per Indian maund the Export Duty on saltpetre, which was formerly charged as an unenumerated article, with an *ad valorem* Duty of 3 per cent.

Act XI. of 1860 *An Act to enforce the fulfilment of Indigo Contracts, and to provide for the appointment of a Commission of Enquiry.*

(Introduced on 24th, and passed on 31st March 1860.)

The serious disturbances which lately occurred in some Districts in Bengal connected with the cultivation of indigo, rendered necessary the immediate passing of a temporary law for the protection of that branch of industry and of the capital embarked therein; and for the appointment of a Commission of Enquiry into the subject.

Act XII. of 1860 *An Act relating to the Emigration of Native Laborers to the British Colony of St. Vincent.*

Act XIII. of 1860 *An Act to repeal certain Laws relating to the jurisdiction of the Zillah Court of Furruckabad.*

Act XIV. of 1860 *An Act to provide for the execution of process within the premises occupied by His Majesty the King of Oude.*

Act XV. of 1860 *An Act to amend and extend Act XXII. of* 1836, *relating to the levy of a Toll on Boats, Rafts, and Floats passing through the Circular and Eastern Canals.*

Act XVI. of 1860 *An Act to amend Act XIV. of* 1856.

(Introduced on 19th July 1856, and passed on 14th April 1860.)

Act XVII. of 1860 *An Act to repeal Act V. of* 1858, *for the punishment of certain offenders who have escaped from jail, and of persons who shall knowingly harbour such offenders, and to make certain provisions in lieu thereof.*

(Introduced on 17th March, and passed on 14th April 1860.)

Act XVIII. of 1860 *An Act to continue in force for a further period of three months Act XXI. of* 1859, *for providing for the exercise of certain powers by the Governor General during his absence from his Council.*

(Introduced on 31st March, and passed on 14th April 1860.)

Act XIX. of 1860 *An Act to amend Act XXII. of* 1855, *for the regulation of Ports and of Port-dues; and Act VII. of* 1858, *for the levy of Port-dues at Ports within the Presidency of Fort St. George.*

Act XX. of 1860 *An Act for settling Promissory Notes of the Go-*

vernment of India producing an annual income of one lakh of Rupees, and a Mansion House and Hereditaments called Mazagon Castle, in the Island of Bombay, late the property of Sir Jamsetjee Jejeebhoy, Baronet, deceased, so as to accompany and support the title and dignity of a Baronet lately conferred on him and the heirs male of his body by Her present Majesty Queen Victoria, and for other purposes connected therewith.

This is a private Act, and was passed to carry out the wishes and intentions of the late Sir Jamsetjee Jejeebhoy respecting a settlement of a sum of money and an estate for the support of the Baronetcy conferred upon him. The Act also provides for the name of the first Baronet being taken by his successor. It received the Royal assent prior to being passed.

BILLS DISPOSED OF.—*Bill "to enforce Signals of the names of Vessels passing Signal Stations established within the River Hooghly and the branches thereof."* Introduced 28th May 1859. *Thrown out 18th June* 1859.

Bill "to amend Act XVIII. of 1848 *for the administration of the estate of the late Nawab of Surat, and to continue privileges to his family)."* Introduced 11th December 1858. *Report of Select Committee adopted 18th June* 1859. The Select Committee, to whom the Bill was referred, recommended that it should not be proceeded with.

Bill "to provide for the more speedy disposal of Appeals in Cases appealable to the Sudder Court and of applications for Special Appeals." Introduced 30th April 1859. *Report of Select Committee adopted 2nd July* 1859. The majority of the Select Committee, to whom the Bill was referred, observed that the Bill was intended merely as a temporary expedient, and they were of opinion, with reference to a scheme for the permanent constitution of the Courts which was shortly expected to be brought forward for the consideration of the Council, that any temporary legislation on the subject was inexpedient.

Bill "concerning Oaths and Affirmations." The proposed measure was not in accordance with the views of the Home Authorities, and the Bill was accordingly withdrawn.

Bill "to establish a Duty of Excise on Salt manufactured in the Presidency of Fort St. George." Introduced 2nd July 1859. *Report of Select Committee adopted 14th July* 1860. This Bill was introduced at the desire of the Madras Government. But as that Government subsequently represented that they were unprepared to substitute an Excise for the existing salt monopoly in the present state of the public service, the Select Committee, to whom the Bill was referred, recommended that it should not be proceeded with.

Bill "for declaring the Law in relation to Bills of Exchange and

Promissory Notes becoming payable on days generally observed as Holidays." Introduced 2nd July 1859. *Report of Select Committee adopted 17th March* 1860.

The object of this Bill was to extend to this country the provisions of the English Law, as contained in the Statutes 39 and 40 George 3rd, Chapter 42, and 7 and 8 George 4th, Chapter 15, relating to Bills of Exchange and Promissory Notes requiring by law presentment and notice of dishonor, which might become payable on days generally observed as holidays. The objections made to the Bill, and the uncertain occurrence and variable duration of the various Native holidays in this country, with other considerations, induced the Select Committee, to whom the Bill was referred for consideration, to recommend its withdrawal, and the Council at large concurred in this recommendation.

Bill "for the better suppression of Frauds in the Cotton Trade in the Presidency of Bombay." Introduced 5th December 1857. *Report of Select Committee adopted 24th March* 1860.

The object of this Bill was to prevent the false packing and deterioration of Cotton in the Presidency of Bombay. But as it seemed doubtful whether that object would be attained by the passing of the Bill, and having reference to the difficulty of legislating on the subject, the Select Committee on the Bill recommended that it should not be proceeded with.

REPORT ON INDIAN ADMINISTRATION.—FINANCE.

1859-60.

The Duty on Malwa Opium exported from Bombay was raised from the 1st July 1859, from 400 Rupees to 500 Rupees per chest.

Salt Duty.—In July 1859 the Bombay Government was instructed to issue a notification, raising the excise duty on salt from 12 annas to 1 Rupee per maund. The Government of Madras also was instructed to raise the price of salt from 1 Rupee to Rupee 1-2 per maund. In October an immediate increase of the duty on salt in the Punjab, from 2 Rupees to Rupees 2-2

per maund was approved; as also the imposition of duties on traders and shop-keepers in that Territory. In December the duty on salt in Bengal was authorized to be raised to 3 Rupees per maund; and in the North-Western Provinces to Rupees 2-8 per maund.

Advances to Opium Cultivators in Behar and Benares, were raised from Rs. 3-8 to Rs. 4 a seer, and the assurance was given that the price would not be reduced below that rate for the next 3 seasons at least. The rise was caused by the material increase in the profits of all other agricultural produce. Its object was to extend the cultivation.

Tanjore Bonds.—Holders of 4 per cent. promissory notes of the Government of Fort Saint George, issued on account of the Tanjore debt, and originally ordered to be discharged at par at the Madras General Treasury, were permitted to subscribe, both at the Madras and Calcutta General Treasuries, to the open 5½ per cent. loan, half in the said promissory notes, and half in 5 per cent. paper, deducting from the anticipation interest on the portion subscribed in Tanjore notes the difference between interest at the rates of 4 and 5½ per cent. per annum, from the date of transfer to the 31st March 1860, when payment at par of all Tanjore debt could be claimed. Subsequently, Tanjore notes alone, without 5 per cent. paper, were allowed to be taken in exchange for 5½ per cent. stock, with an adjustment of interest as before prescribed.

The closure of the Five and a Half per Cent. Loan was announced in a notification dated 14th February 1860. The original limit of subscriptions to the loan was fixed at 5 crores of rupees. Up to 10th February the aggregate of cash subscriptions was Rs. 4,21,84,100. The subscriptions at Bombay and Madras were accordingly limited respectively to a total of 80 lakhs in cash and the balance was left to Calcutta, by a notification dated 10th February 1860.

Treasury Bills.—The treasury bills, bearing interest at the rate of 2½ pie per cent. per diem, ceased to be issued after the 27th of April 1860, under Notification No. 33 of that date, in which it was also intimated that a further Notification would shortly be issued, under which holders of such bills would be enabled to convert them into other stock, or to receive the amount in cash, as they fall due.

Interest on Government Promissory Notes of the following loans, was allowed to be made payable at the option of the holders, either as heretofore or by coupons payable to Bearer:—

5 per Cent. Public Works Loan of 1854-55.
5 „ Loan of 1856-57.
5½ „ „ 1859-60.
as also
4 per Cent. Loan of 1824-25.
„ „ „ 1828-29.
„ „ „ 1832-33.
„ „ „ 1835-36.
„ „ „ 1842-43.
„ „ „ 1854-55.
4½ „ „ 1856-57.
3½ „ „ 1853-54.

The Accountants General of Madras and Bombay were also authorized to enface Government promissory notes for payment of interest in London, by drafts on India, upon the condition that every note presented for enfacement should previously have been transferred for the payment of interest to Madras or Bombay, and should bear on the back of it the certificates of the Accountant General, that all existing endorsements have been examined by him, and are valid and correct, and that the note itself is genuine and outstanding; and on the understanding that no endorsements made subsequently to the date of the Accountant General's certificate will be recognised in England. The holders of Indian Government promissory notes, who might desire that the interest thereon should be made payable by bills issued in London, were informed that, after 20th March 1860, the following enfacement would be made. "Interest, subject to deduction of Indian Income Tax, payable in London by draft on Calcutta (or Madras, as the case may be.") Also that the interest payable on Indian Government promissory notes already issued with coupons, will be chargeable with duty under the proposed Income Tax.

Budget Estimates and Imperial Audit.—To secure financial economy a Resolution was issued on 7th April 1860 establishing a system, whereby a Budget of Imperial Income and Expenditure shall be prepared annually, so that the Financial Estimates for each year may be arranged, considered, and sanctioned by the Supreme Government of India *before* the year commences. Under the same Resolution it was resolved to establish an Imperial Audit Department at Calcutta, periodically to pass the accounts based on the Budgets, and at the close of the year to examine and declare to the Supreme Government how far the provisions of the Budget have been observed by the Executive Government and the Departments. It was further directed that the accounts of the various departments of the army, after exa-

mination at the several Presidencies, should be transmitted to the Military Finance Commission appointed under orders of the Military Department; and the Commission was desired to transmit the aggregates (without the details) to the Audit Department for final sanction in reference to the Budget. On 23rd April instructions were issued, with a view to keep the expenditure of stores within a proper limit, to check their unnecessary accumulation, and all excess in allotments thereof.

Gold and Paper Currency.—On 27th April a note by the Financial Secretary was forwarded to the Home authorities suggesting the issue of local notes by Government, the same to be receivable at the option of the public, and to be convertible at a few large treasuries conveniently situated in circles of country from 300 to 400 miles in diameter: the lowest denomination of such notes to be Rupees 10. The Government thought the scheme premature while its own security was regarded by the public with some degree of mistrust. On the 25th and 31st May 1859, the Bengal Chamber of Commerce suggested that it was desirable to introduce into India gold as a subsidiary currency, to the extent of 200 Rupees, recognizing the "Sovereign" as the equivalent of 10 Rupees.

To this the Government objected. In reply to the note of 27th April, the Secretary of State for India said Her Majesty's Government were not disposed *then* to direct the introduction of such a currency, whether in the form of Government notes, or by means of extended privilege to the Chartered Banks. On the 29th December following the Governor General sent home a copy of a Minute by the Right Honorable James Wilson, embodying a scheme of a Paper Currency in India, which was fully approved by the Governor General, and for which he solicited the sanction of the Home authorities. Accompanying it was a Minute by Mr. Wilson opposing the introduction of a gold currency. In March 1860 the Home authorities sanctioned Mr. Wilson's scheme of a Paper Currency, and subsequently expressed their concurrence in the opinion that a Gold Currency was unnecessary.

Savings Banks.—The military branch of the Government Savings Bank at *Calcutta* was directed to be abolished from 1st May 1860, and Regimental Savings Banks to be established in lieu thereof, the accounts of which are to be audited annually, and adjusted by the Accountant General at Calcutta, the annual audit being conducted by two or more Auditors, to be annually appointed by the Government of India. The same plan has since been introduced at Bombay, and was under consideration at Madras.

Department of Accounts.—Considerable progress was made in the adjustment of old accounts. The balances in the Civil Department, standing on the books of the Accountant General to the Government of India, were reduced by 75,76,915 Rupees, and those in the Military by 16,69,686 Rupees. The deposits of the late Government Agency were reduced from 11,12,150 Rupees to 1,44,648 Rupees. An improvement was made by the Accountant General in his observance of the dates fixed for the submission to Government of his annual statement of receipts and disbursements and his regular estimates. The Military Finance Commission were engaged in reorganising the whole system of Military accounts.

Calcutta Mint and Assay Office.—

	Gold.		Silver.	
Years.	Government Assay.	Individuals' value, Rs.	Government Assay.	Individuals' value, Rs.
1856-57	25	11,80,666	1,05,11,813	5,47,82,573
1857-58	2,263	4,86,577	88,37,245	6,05,49,693
1858-59	408	11,88,668	5,85,599	3,45,40,585
1859-60	3,109	9,61,124	4,05,51,240	2,66,89,869

Of the silver bullion received during the last year on account of Government, the bulk (4,03,90,905 Rupees) was remitted by the Secretary of State; the total quantity received from Government and merchants being in value 6,72,41,108 Rupees, which is nearly double the quantity received in the previous year. In the coining department the total number of pieces of all description coined was 12,41,63,765, being 97,31,117 more than the number coined in 1858-59 (11,44,32,648, and erroneously stated in last year's Report at 11,25,54,849.) The number of small silver coins struck in 1859-60 was 1,83,61,923, the largest number that has been coined in any single year, since the establishment of the Mint. The copper coinage numbered 4,91,18,317 pieces, being 1,87,99,267 less than the number coined in the preceding year (6,79,17,584.) The fact of the whole of the copper coinage having been manufactured from slabs, and having been entirely suspended for a time in consequence of the heavy importation of silver bullion in June and July 1859, accounts for the deficiency. The following are the details.

		1859.							
		May.	June.	July.	August.	September.	October.	November.	December.
GOLD...	... ...	0	0	0	0	0	0	11,970	0
SILVER.	Whole Rupees ...	26,56,736	95,36,358	89,26,602	74,52,978	43,14,896	22,47,586	35,73,254	41,03,000
	Half „ ...	1,00,673	19,744	7,99,665	6,02,305	0	0	0	0
	Quarter „ ...	4,93,977	11,22,319	0	0	63,100	3,86,406	16,13,774	1,58,116
	One-Eighth ...	0	0	0	1,33,909	18,73,909	2,88,736	0	21,66,536
COPPER.	Double Pyce ...	0	0	0	0	0	0	2,27,342	63,519
	Single „ ...	42,18,581	0	0	12,17,859	59,18,776	36,65,500	50,24,779	46,78,577
	Half „ ...	0	0	0	0	0	0	8,60,171	4,79,554
	Total ...	74,69,967	1,06,78,421	97,26,267	94,07,051	1,21,70,681	65,88,228	1,13,11,290	1,16,49,302

		1860.				
		January.	February.	March.	April.	Grand Total.
GOLD...	... ...	12,401	0	11,410	7,090	42,871
SILVER.	Whole Rupees	36,72,384	33,84,636	32,45,996	35,26,228	5,66,40,654
	Half „	99,271	10,76,532	0	0	26,98,190
	Quarter „	0	8,42,318	5,47,522	0	52,27,532
	One-Eighth	21,39,404	0	14,26,690	24,07,017	1,04,36,201
COPPER.	Double Pyce	0	0	0	0	2,90,861
	Single „	52,99,312	67,13,605	58,40,629	49,10,113	4,74,87,731
	Half „	0	0	0	0	13,39,725
	Total ...	1,12,22,772	1,20,17,091	1,10,72,247	1,08,50,448	12,41,63,765

The system of taking musters by granulation was adopted by the Assay Master most successfully. The following is a statement of the gold assayed during 1859-60 :—

Remittance on Government account.	Merchants'.	Value standard Melting.	Value coined.
Rs.	Rs.	Rs.	Rs.
3,109	9,61,124	1,10,279	6,43,065

The quantity of silver received and coined in the last four years is as follows :—

	Remittance on Government account.	Merchants'.	Value Standard Melting.	Value coined.
	Rs.	Rs.	Rs.	Rs.
1856-57	1,05,11,813 5 2	5,47,82,573 5 11	11,10,49,558 2 4	6,69,10,807 4 0
1857-58	88,37,244 8 2	6,05,49,693 2 0	12,19,00,790 9 0	7,30,93,307 0 0
1858-59	5,85,599 7 3	3,45,40,281 11 4	6,37,63,640 0 0	3,84,31,476 4 0
1859-60	4,05,51,239 12 7	2,66,89,868 14 8	10,71,79,133 0 6	6,06,01,157 2 0

The quantity of silver received and assayed in 1859-60 was greater than in the preceding year.

Bank of Bengal.—A dividend at the rate of 12 per cent. per annum was declared for the six months, from the 1st July to the 31st December 1859, and of 15 per cent. for the last six months, from the 1st January to the 30th June 1860. Towards the close of 1859-60 there was an excess of circulation of notes of the Bank beyond the limit prescribed by the bank charter, arising mainly from the large amount of notes issued in connection with the 5½ per cent. loan, and through those operations a large amount of the notes having been held in the public treasury. Government, in compliance with a proposition from the Directors of the bank, authorized an excess of issue to the extent of 75 lakhs, on the understanding that interest at the rate of 5 per

cent. per annum should be paid into the public treasury upon any excess of such limit as might have taken place, computed from day to day.

REPORT ON INDIAN ADMINISTRATION.—MARINE.

1859-60.

Bengal.—There were seven sea-going steamers on the 30th April 1860.

	Tonnage.	*H. P.*	*Commander.*
"Fire Queen"	769	200	A Baker, *acting.*
"Australian"	1,200	300	S. G. Boon.
"Sydney"	1,200	300	G. J. Neblett.
"Arracan"	1,100	220	P. Brett.
"Bentinck"	2,000	520	T. H. Hodge.
"Armenian"	789	60	D. Fowler.
"Nemesis"	400	120	W. H. Eales.

The "Fire Queen" and "Nemesis" were employed in the Bay of Bengal, and the others in the China Expedition. The sailing transports "Tubal Cain" and "Sesostris" were engaged in carrying troops to and from Madras. The number of ships which brought horses from the Colonies for Government, during the year, was 14, with 1,310 horses.

Twenty-six ships arrived from England with troops, bringing 8,265 men, 114 women, and 75 children. Thirty-one ships were engaged at Calcutta for the conveyance of invalids, time-expired and discharged men, &c. They conveyed 1,331 invalids, 9,179 men in health, 221 women and 265 children. Forty-eight ships, including steam ships belonging to Government, were taken up for the transport of troops, horses and stores from Bengal to China. Most of them were engaged for 6 months. The Surveying vessel "Krishna" with her tender "Minx" under Lieutenant Jackson, I. N., in November and December 1859 completed the survey, on the coast of Sumatra, of 96 miles of coast line, with soundings, extending from 10 to 20 miles from the shore. The "Mutlah" under Lieutenant Sweny, I. N., after having surveyed the Coromandel Coast to the 12th parallel and having been refitted, buoyed off the Dumrah River and surveyed the Dabee River on the coast of Orissa. She then resumed the survey of the Coromandel coast.

Pegu.—The Irrawaddy Flotilla, on 30th April 1860, consisted of the following:—

Steamers.	*Troop and Cargo Boats.*
"Lord William Bentinck."	"Bhageerutti."
"Nerbuddah."	"Panlang."
"Damoodah."	"Sutlej."
"Mahanuddy."	"Actæon."
"Diana."	"Kelpie," gun-boat.

The Flotilla was employed in conveying Mails, Government stores and private freight, and in effecting the relief of troops on the Frontier. The boats were occasionally employed on special duty, under the orders of the Commissioner, the General, and the Chief Engineer of the Province; also in the inspection of beacons at Elephant Point, and the site at Monkey Point selected for the erection of a battery; also in towing ships to sea. Two steamers were on detached duty, one on the Frontier, and the other at Bassein. The amount of freight and passage money earned by the vessels of the Flotilla during the year, was 2,02,259 Rupees; of which 30,991 Rupees were cash payments, including 2,740 Rupees for towing ships, and the remainder *pro formâ* earnings. The expenditure was Rs. 2,88,026. The monthly pay of the Master Attendant's Department was Rs. 1,770.

The tonnage at the Port of *Rangoon* shews a great falling off:—

Tonnage Inwards.

1852–53	32,564
1853–54	53,800
1854–55	1,09,171
1855–56	1,38,881
1856–57	1,36,531
1857–58	1,94,886
1858–59	1,27,223
1859–60	80,774

The receipts of the Port were 31,538 Rupees, and the charges 35,431 Rupees. The same is shewn since 1852-53.

Years.	Receipts of the Port.	Charges of the Port.
Beginning		
1852–53	2,773 4 0	Unknown.
1853–54	9,478 12 0	15,825 3 10
1854–55	15,890 10 0	40,048 5 6
1855–56	18,725 7 0	32,124 4 3
1856–57	22,999 4 0	67,526 0 11
1857–58	39,048 11 9	29,242 5 8
1858–59	50,063 0 3	32,795 9 5
1859–60	31,538 11 6	35,431 13 9

At *Port Dalhousie* the following vessels were attached to the Master Attendant's Department.

1 Buoy Vessel "Kate."
1 Ditto "Punt."
1 Cargo Schooner.
1 Port Gig.
1 Ditto Cutter.
2 Dock Yard Lighters.
10 Flotilla Cutters.
10 Ditto belonging to Dock Yard.

The following is a statement of the receipts and charges with the tonnage resorting to the Port since its first establishment.

Years.	Receipts of the Port.	Charges of the Port.	Annual number of vessels arrived.	Annual number of vessels departed.	Tonnage of arrivals.	Tonnage of departures.	Remarks.
1853-54	1,218 10 0	0 0 0	3 12	3 91	1224 1165	1124 3750½	British square rigged. Native craft and boat.
1854-55	2,100 8 0	0 0 0	7 28	7 99	3227 3164	3227 5175	British square rigged. Native craft and boat.
1855-56	4,248 12 0	0 0 0	44 32	34 67	16049 3574	12105 4890	British square rigged. Native craft and boat.
1856-57	3,563 4 0	4,290 10 3	27 29	28 51	12101 2490½	11338 2915	British square rigged. Native craft and boat.
1857-58	9,494 6 0	7,641 12 4	80 35	60 70	41086 3434	29851 4183½	British square rigged. Native craft and boat.
1858-59	8,692 2 0	11,128 8 5	45 42	59 88	22392 4742	28502 5682½	British square rigged. Native craft and boat.
1859-60	3,211 14 0	9,945 15 0	30 38	0 0	11351 1406	0 0	British and Foreign Vessels. Native craft and boat.

Tenasserim and Martaban.—The following vessels were attached to the Master Attendant's and Pilot Establishment.

"Retriever" Buoy Vessel.
Ditto Jolly Boat.
Amherst Row Boat.
Ditto Canoe.
Master Attendant's Cutter.
2 Coal Boats.
"Amherstea" Schooner.
Ditto Jolly Boat.
Pegue Schooner.
Ditto Jolly Boat.

The number of ships arriving in the Port of *Moulmein* during the year 1859-60 was 311, with a tonnage of 103,246 tons, and of departures 331, tonnage 117,859 tons—aggregating 221,165 tons.

Years.	Arrivals.	Departures.	Total Tonnage.
1857–58	418	399	2,62,913
1858–59	360	372	2,56,115
1859–60	311	331	2,21,105

The steamer *Pluto* was attached to the Province.

General.—The receipts in the Marine Department under the Government of India amounted to Rs. 9,91,746 and the expenditure to Rs. 30,50,248 or an excess of expenditure of Rs. 20,58,502. The cost of coal and naval stores sent to Port Blair was Rs. 1,65,395. Coal to the value of Rs. 1,79,827 was supplied to H. M.'s ships, and this sum was in the course of recovery from H. M.'s Government.

REPORT ON THE ZANZIBAR DOMINIONS.

Bombay Records, No. LIX. New Series.

Colonel Rigby, Her Majesty's Consul and British Agent at Zanzibar, submits to the Bombay Government a report on the Zanzibar territories, dated 1st July 1860.

These territories comprise all that part of the east coast of Africa included between Magadosha, situated in about 2° north latitude, and Cape Delgado, situated in 10° 42′ south latitude; they are bounded on the north by independent tribes of Somal and Gallas, and on the south by the Portuguese territories under the Governor General of Mozambique. The extent of coast under the dominion of Zanzibar is about eleven hundred miles. The islands of Zanzibar, Pemba, and Monfea are also included in the Zanzibar dominions. The territories on the mainland have no defined limit towards the interior, being chiefly inhabited by heathen tribes, who pay no taxes, and, at a distance from the coast, only acknowledge the authority of the Sultan when it suits their own interest to do so.

The coast of the mainland is called by the Arabs "El Sowahil," and the inhabitants, without distinction of tribes, "Sowahili," or dwellers on the coast, the name being derived from the Arabic noun "Sahil," a sea-coast. That part of the coast opposite to Zanzibar, and as far north as Mombassa, is called "Marima"—an African word signifying "the Coast." From Brava to Magadosha, the coast is called "El Benadir" or "the Ports," and to the south of Zanzibar, as far as Keelwa, it is called "Mungao."

The island of Zanzibar, called "Ungujo" by the Africans, is situated at a distance of twenty to thirty miles from the African coast; it is about 48 miles in length and from 15 to 30 in breadth. It is the seat of Government. The channel between the island and the mainland has sufficient depth of water for the largest ships. There is good anchorage on the west side of the island, but none on the East.

Description of Zanzibar.—The island is covered with woods and plantations, and the frequent rains causing perpetual verdure, it everywhere presents a delightful appearance. Towards the sea-coast, the island is low and the soil light and sandy; but at a distance of two to three miles from the sea, the land rises in gentle eminences to a height of three or four hundred feet. The slopes are covered with clove plantations and orange groves; rice, sugarcane, cassava or manioc, jowaree, &c. are grown in the plains and valleys, which are well watered with rivulets; these flow at all seasons, and afford a plentiful supply of good water to the town and shipping. In the interior of the island the soil varies very much, in some parts consisting of a rich, black loam, formed by decayed vegetable matter, in others of a tenacious clay of a bright-red colour; this is the most productive soil, and is generally selected for clove plantations. There are no streams of sufficient size to be called rivers, but

rivulets are numerous. There are two aqueducts near the town, one of which has been neglected, but the other supplies the shipping with water.

Population.—No returns are kept, but the population of the island is estimated at 250,000 souls. The town contains about 60,000 inhabitants, but during the North East monsoon some 30 or 40 thousand strangers are added to this number. The population is very mixed; the chief people are the Arab proprietors who form a sort of aristocracy possessing large plantations and numerous slaves. A numerous class has sprung up, the offspring of Arabs by African women. Natives of the Comoro Isles have settled in Zanzibar to the number of about 4,000. There are also many natives of Madagascar. Arabs from the coast of Oman come and go with the monsoon. About five or six thousand natives of India are settled in the island. They are chiefly Banians from Kutch and Jamnuggur, and Khojas and Bhoras from Kutch, Surat and Bombay. Nearly all the trade is in the hands of these people. They are gradually acquiring all the wealth and property of the place; and the Arabs, from their indolence and want of honesty, are becoming impoverished. The Banians never bring their families or females with them, and always look forward to a return to India. The Khojas and Bhoras bring their wives and children and become permanent settlers.

Language.—The common language is "Kishnaheli," one of the great family of South African languages, dialects of which are spoken over a vast extent of Eastern Africa. It is soft and euphonious.

Education.—No foreign missionary has yet attempted to establish a School at Zanzibar, though such an undertaking would be encouraged by the Sultan, and the wealthy Indian merchants. Education is at the lowest point.

Justice.—There are no regular Civil Courts nor any code of laws or regulations. The Cazee decides cases summarily. The right of direct appeal to the Sultan exists in all cases. All criminal matters are decided by the Sultan in person, for which purpose he sits in public durbar twice daily. Murder is the only crime punished by death.

Police.—There are no regular police. The Sultan's soldiers act as patrols, but they are a worthless set of men.

Jails.—There are no regular jails, and prisoners are confined in one of the forts. The imprisonment is always of the mildest description.

The Arabs.—The Arabs of Zanzibar, although the ruling race, are generally very dirty, ignorant and bigoted. Luxury

and licentiousness have completely demoralised them. Their usual dress is a long white cotton shirt, reaching nearly to the ankles; a loongee or waistcloth of silk or cotton of Muscat manufacture; a turban of the same; a sort jacket of broad-cloth; a girdle round the loins, and a loose cloak. All classes go armed with a straight double-edged sword and a dagger or jumbea. The dagger is usually highly ornamented. The Arab females never go abroad during the day.

Slavery.—The slaves belong to various African tribes in the interior, chiefly those of M'Nyassa, Miyan and Magindo. About 19,000 were brought down in 1859. The price of adult males and females newly imported is £2 to £7, and that of boys and girls 25 to 30 shillings. When landed from the vessel they are transported in open boats, packed so closely that they are obliged to remain in one position; their naked bodies are exposed day and night to sun, wind, and rain; they have only just sufficient coarse grain given them to keep them from starvation; if the boats meet with contrary winds, they generally run short of water, and thirst is added to the other miseries these poor creatures endure; on arriving at Zanzibar, they are frequently in the last stage of lingering starvation, and unable to stand. Some drop dead in the custom-house and in the streets; others, who are not likely to recover, are left on board to die, in order that the owner may avoid paying the duty which is levied on those landed. After being brought on shore, the slaves are kept some time in the dealers' houses until they gain strength and flesh, when they are taken to the slave market and sold to the highest bidder. The Arabs regard the slaves as cattle, and not the slightest regard is paid to their sufferings. They are too cheap and numerous to be cared for; in 1859 slaves were sold in the interior for half-a-dollar a-head, or ten slaves given in exchange for one cow or bullock. Zanzibar is the only place where the slave trade is lawful. The only persons who benefit by it are a few vile, sensual Arabs; whilst it is carried on with revolting cruelty and is desolating vast districts in Eastern Africa.

Climate.—The climate of Zanzibar is not so unhealthy as has generally been supposed. Sanitary reform has tended much to improve the town and island. Fevers are prevalent, small pox appears almost every year. The crews of the merchant ships in the harbour are generally very healthy. The climate is enervating and therefore not favourable for a long residence. The members of the foreign mercantile houses usually leave for a change of climate after a residence of three years. There are two rainy seasons, one in March, April and May, and the

other in September and October. The total fall in 1859 was 167 inches, being more than double the average annual fall at Bombay. The extremes of temperature were 89 and 70 degrees Fahrenheit.

The Town of Zanzibar.—Like all Eastern towns the streets of Zanzibar are narrow, irregular and ill-built. It contains about 60,000 inhabitants. The palace and the principal houses are situated close to the sea, facing the harbour. From a superstitious idea the Arabs always leave a part of every house unfinished, and when once built they never spend a farthing on repairs or painting.

Productions, &c.—Provisions are abundant, fish and fowls can always be had. European vegetables cannot be grown successfully. Most tropical fruits are very abundant. The mango is very plentiful; there are two crops annually. The sugar produced is consumed chiefly on the island. There is only one steam sugar mill, which belongs to the Sultan.

Animals.—At a distance from the town, leopards and wild hog are found. Venomous reptiles are rare, if they exist at all. Wild animals of all kinds abound along the coast of the mainland.

Military Force.—The Sultan merely keeps 1,400 irregulars to garrison the forts. On an emergency he could collect 20,000 to 30,000 armed men from the coast, but they have no proper leaders and are contemptible as soldiers.

Naval Force.—The fleet consists of the Frigates, "Shah Allum," 52 guns, "Piedmontese," 36; and "Victoria," 32; the Corvettes, "Iskunder Shah," 22; and "Artimise," 22; and Brigs "City of Poona," 4, "Africa" 4, and "Taj," 4. Men accustomed to the sea can be procured readily.

Customs.—A duty of 5 per cent. is levied on all imports with the exception of bullion. The customs are farmed to an Indian Banian for 196,000 German crowns per annum. This forms the entire revenue, with the exception of a tribute of 10,000 crowns paid by the Mukhadim tribe.

Land Tenure.—There is no land tax whatever. The landholder is merely under an obligation to aid the Sultan in time of war. A large estate may be purchased for about 5,000 dollars.

Excise.—There is no prohibition on the sale of spirituous liquors, opium, &c. Smoking is not allowed in the presence of the Sultan; very few persons smoke at all, but drunkenness is on the increase.

Trade.—The trade of Zanzibar during 1859 was

Imports	...	...	... £ 908,911
Exports	...	...	... 755,686
			£ 1,664,597

This port is now the chief market in the world for ivory, gum copal and cloves. During 1859 the export of ivory amounted to 488,600 lbs. valued at £146,666; that of gum copal was 875,000 lbs. valued at £37,166, and that of cloves was 4,860,100 lbs. valued at £55,666. The copal is chiefly dug from the earth a few miles inland on the coast of Africa. The supply is supposed to be inexhaustible. The cloves are entirely the produce of the islands, Zanzibar and Pemba.

The chief imports are cottons, silks, beads, muskets, rice and wheat. The following table exhibits the total value of the trade with the various countries:—

Countries.	Imports from			Exports to			Total.		
	£	s.	d.	£	s.	d.	£	s.	d.
Great Britain	.....			5,566	15	0	5,566	15	0
United States	126,398	16	0	118,688	18	0	245,087	14	0
France	114,790	18	0	55,000	0	0	169,790	18	0
Hamburg	101,296	18	0	35,777	15	0	137,074	13	0
British India	99,606	15	0	105,888	18	0	205,495	13	0
Cutch	57,872	0	0	69,664	10	0	127,536	10	0
Singapore	7,895	0	0	.....			7,895	0	0
Arabia	17,606	19	0	23,377	14	6	40,984	13	6
East coast of Africa ...	363,666	15	0	274,200	0	0	637,866	15	0
West coast of Africa ...	.....			51,111	2	6	51,111	2	6
Madagascar	19,777	14	0	16,411	2	0	36,188	16	0
Total £	908,911	15	0	755,686	15	0	1,664,598	10	0

The tonnage of the merchant shipping during 1859 was 23,340 tons, being 3,619 less than the preceding year. The slave trade encouraged by the French tends to check trade. The trade with America is increasing while that with France is decreasing. Besides Indian firms, the foreign mercantile houses consist of three Hamburg, three United States and two French.

Currency.—The only coins in circulation are the Maria Theresa dollar or German crown, and the copper pice coined at

the Bombay mint. Maria Theresa dollars of the die of 1780 are still coined at the Vienna mint expressly to supply the demand for them in Eastern Africa. The number of copper pice obtainable for one dollar varies, according to the supply, from 130 to 110. There is generally a great scarcity of copper coin, as the British Indian pice is coming into circulation all long the east coast of Africa. Maria Theresa dollars form the circulating medium on the opposite mainland as far as Mozambique; but in the interior payments are made in cubits of American cloth, or in Venetian beads.

Towns.—There is a only one other town on the island besides Zanzibar. The chief towns on the coast are Keelwa, Mombassa, Brava, Zamoo and Magadosha. The ancient and flourishing town of Melinda was destroyed by the blighting, bigoted rule of the Portuguese.

History.—The earliest settlement of Arabs on the coast, of which there is any account, is that of the El-Harth tribe from the neighbourhood of Bahrein, who about the year A. D. 924 founded the cities of Magadosha and Brava. About 60 years later Keelwa was founded by the Persians. In 1499 Vasco de Gama visited Zanzibar, and soon after the Portuguese established a footing on the coast. In 1698 the people of Mombassa sought the aid of the Sultan of Oman against the Portuguese. The Sultan was at first successful, then the Portuguese regained all their possessions, but were eventually expelled. The island of Zanzibar first came under the authority of the Oman Arabs in 1784. Many changes occurred till 1828, but since that year the coast and islands have been in the possession of the Imaum's family. Recent discoveries have shown that the interior of the opposite mainland is a fine, healthy country, producing abundantly cotton, coffee, gums, grains, and vegetables. Three vast lakes have recently been discovered, viz. the Nyassa, the Tanganika, and the Nyanza. Should the great lake of Nyassa prove to be connected with the northern branch of the Zambesi, it will be accessible to steamers; and not only may a considerable trade arise on it, but the main supply of slaves to the east coast can be intercepted. Most of the Negro tribes in the interior are quiet, industrious people. The Manganga tribes, near Lake Nyassa, grow a vast quantity of cotton; and Doctor Livingstone states all classes are employed in spinning and weaving it. Unfortunately the slave trade has recently extended to these industrious tribes, and many of the Manganga are now amongst the slaves brought to Zanzibar from Keelwa. Should the Zanzibar dominions remain at peace, trade will probably continue to increase, and the towns on the

east coast of Africa gradually recover the prosperous condition they had attained before the invasion of the Portuguese. The harbour of Zanzibar is the most commodious and safe on the east coast of Africa, and bids fair to become the chief emporium of foreign trade on this coast. The greatest drawback to the prosperity of these countries is the extensive slave trade, which is depopulating vast districts, and keeps the tribes in perpetual warfare with each other to supply the demand.

LAND REVENUE
ADMINISTRATION OF THE LOWER PROVINCES.

1859-60.

THE report on the Land Revenue administration of the Lower Provinces for the year 1859-60 was submitted to the Government of Bengal by the Board of Revenue on 20th November 1860.

The following table shews the percentage of collections, remissions and balances in each division :—

DIVISIONS.	COLLECTIONS.	REMISSIONS.	NET BALANCES.
Bhaugulpore, ...	87 12 4	1 6 7	10 13 1
Burdwan, ...	96 4 2	0 4 5	3 7 5
Chittagong, ...	87 9 4	0 14 8	11 8 0
Cuttack, ...	76 6 6	0 8 7	23 0 11
Dacca, ...	93 8 1	0 9 6	5 14 5
Nuddea, ...	90 0 7	2 4 4	7 11 1
Patna, ...	89 11 6	0 1 4	10 3 2
Rajshahye	96 10 2	0 1 5	3 4 5
Assam, ...	89 1 11	1 3 1	9 11 0
Chota Nagpore, ...	86 15 11	0 5 0	12 11 1
Arracan, ...	99 13 0	0 1 5	0 1 7
Darjeeling district, ...	91 11 9	1 4 8	6 15 7
Cossyah Hills do., ...	81 8 9	0 0 0	18 7 3
Sonthal Pergunnahs do.,	94 14 7	0 3 10	4 13 7
Grand Total, ...	91 8 10	0 9 8	7 13 6

Of the aggregate demand 4,11,66,290 Rupees, the collections during the year amounted to 3,76,88,568 Rupees, being at the rate of 91½ per cent. leaving 7⅝ per cent. outstanding at its close, besides ⅞ per cent. remitted. Balances were due from 31 districts. The largest were Chittagong Rs. 1,66,383; Pooree 1,00,081; Backergunge 66,181; Jessore 60,759; Nuddea 86,205; Twenty-four Pergunnahs 1,67,498; and Nowgong 39,068; but almost the whole amount was either in course of realization or realizable at next ensuing fixed date. The remissions amounted to Rs. 2,48,953, of which Rs. 1,10,956 were remissions of revenue of the current year, namely, Khalaree Remissions Rs. 94,589; Losses from inundation Rs. 12,802; from other causes Rs. 3,565. The Bukya Remissions, amounting to Rs. 1,37,997, were of the usual character.

Land redeemed.—The following is a memo. of Estates and Tenures, the Government jumma of which was redeemed during the year by a ready money payment:—

Districts.	Number of Mehals.	Sudder Jumma.			Price of Redemption.		
Nuddea, ...	1	0	1	7	0	15	10
Midnapore, ...	2	1	8	8¼	15	7	8½
Twenty-four Pergunnahs, ...	1	0	10	1	6	4	10
Calcutta, ...	45	233	2	0¼	3,496	15	6¾
Chittagong, ...	236	89	4	0	892	10	0
Total, ...	285	324	10	4½	4,412	5	11¼

Forty-four mehals were removed from the Rent Roll on account of diluvion, the Sudder Jumma of which amounted to Rs. 1,500.

Miscellaneous Revenue.—The collections on account of Miscellaneous Revenue on a total demand of Rs. 3,61,098 amounted to Rs. 3,50,577 being at the rate of 97 per cent.

Government Estates.—The number of Estates the property of Government was 7,432, or 73 less than in the previous year, there being 175 new acquisitions against 248 removals. Of the latter more than one-half belong to the District of Shahabad, where confiscated fractional shares of Estates had been brought into the Statement as separate mehals. These shares have since been sold. The 95 acquisitions in the same District consist partly of mehals confiscated under Acts XIV. and

XXV. of 1857, and partly of Estates which had been erroneously removed from the previous year's Statement. Sales of Government estates were held in Burdwan, Beerbhoom and Bancoorah, as follows:—

Districts.	Number of Mehals.	Jumma.			Price realized.		
		Rupees.			Rupees.		
Burdwan, ...	66	911	10	11¾	4,615	10	10
Beerbhoom, ...	12	5,618	1	4½	24,768	4	0
Bancoorah, ...	5	224	13	2¼	928	0	0
Total, ...	83	6,754	9	6½	30,311	14	10

Wards.—The estates under the management of the Court of Wards belonged to 69 proprietors of whom 10 were females, and 5 were disqualified from other causes than sex or minority; 34 estates were brought under the Court's management in the course of the year, and 4 released, leaving the number at the close of the year 270. There were 8 boys from 12 to 16 years of age in the Ward's Institution in Upper Circular Road, 3 having left during the year. The Rajah of Cooch Behar was expelled for misconduct and two left on attaining their majority.

Estates attached.—Of 365 Estates under attachment during the year, 183 were placed in that condition by order of the Civil Court, and 182 by order of the Criminal Court. The Government demand from these Estates was 1,73,934 Rupees, of which 1,57,677 Rupees or 90¾ per cent. was realized within the year. The outstanding balance belonged to ten Districts only, in some of which a portion had since been realized.

Settlement.—In Shahabad and Behar the work of settlement was very heavy. In Cachar, besides the re-settlement of a large portion of the District, in consequence of the expiry of the period of the former settlement, at a jumma of Rupees 81,597-2-11, 255 holdings were settled regularly by the Superintendent at a jumma of 18,531 Rupees, and 147 summarily at a jumma of 3,249 Rupees. In addition, 9 grants under the Assam Rules were settled at a prospective jumma of 8,903 Rupees, and 26 remained for settlement after due enquiry and survey. In the Soonderbuns 39 estates were surveyed consisting of 1,71,538 beegahs, of which 1,37,751 were cultivated and 33,787 jungle and waste.

Twelve estates remained for next season. Twenty-six allotments were still to be inspected, and 3 or 4 new ones to be made besides 20 blocks of fisheries to be farmed out. Of 386 estates and lots in charge of the Soonderbuns Commissioner during the year, 100 were lots granted, of which the rent free period had not expired, and 97 were lots remaining to be granted; 146 were Henckell and Donnelly's mehals, and 43 were resumed mehals. In Assam proper 576 mehals were settled and 740 remained to be settled.

General.—The rice crops of the year were good, but the price of grain and generally of all articles was high during the year. The cultivation of tea was increasing rapidly; fresh grants were being continually called for. The circulation of money caused by these plantations was said to have enabled the people to meet the rise in the price of necessaries. In Darjeeling the lease of the copper mines was renewed for 350 rupees, no higher offer being made for it, and 7 lime deposits were rented at a jumma of 320 rupees. The new rules for the grant of waste lands, dated 7th May 1859, introduced very important changes in Darjeeling. A freehold tenure is obtainable by purchase at auction of the highest bidder above the upset price of Rs. 10 per acre, and building sites at Rs. 50 per annum are commutable to freeholds at 20 years' purchase. These provisions greatly stimulated enterprise and added to the influx of capital. Three new Tea and Coffee Companies were formed during 1859-60, with a capital of £60,000. Waste land was sold at auction as high as Rs. 24 per acre. The statistics of the Province of Arracan shew an increase in population, cultivation and revenue. The population of that province was found to be 3,72,952; the capitation tax Rs. 2,96,792; the area in cultivation, 11,25,267 beegahs; the land revenue Rs. 7,33,610; the miscellaneous revenue 4,57,728; the Commission and other charges Rs. 2,12,622. The export of grain shewed a marked decrease, owing to a scarcity of freight.

Summary Suits.—Of 26,960 on the files, excluding Assam, 26,786 were disposed of during the year, leaving 174 pending at its close. Of 5,958 applications for the sale of distrained property, only 857 terminated in sale, the rest being either compromised or the claims which they represented satisfied. In Assam 2,028 Rent suits were disposed of out of 2,354, leaving 326 pending; and 609 execution cases out of 674, leaving 65 remaining unexecuted at the end of the year.

Act. X. of 1859.—The statements in the appendix exhibit the

results of the last 9 months of the year, during which this Act was in operation, excluding Assam as before. The number of cases in these 9 months was very much less than the number instituted in the 3 months during which the old Summary Suit Law was in force. This was owing to the people not having become acquainted with the provisions of the new law. The largest number of cases instituted were for arrears of rent, being nearly two-thirds of the total institutions of the 9 months. The decisions were to the institutions nearly as 2 to 3, and there were 6,949 cases still pending at the close of the year, of which one-half belonged to the 3 districts of Purneah, Chittagong and Backergunge. The cases of execution of decrees were to the total number of suits instituted in the proportion of about 1 in 14. Applications for sale of distrained property were very limited, except in the Chota Nagpore Division, to which more than half the total number belonged. Of 1,023 applications made in the 9 months only 102 terminated in sale and 153 remained undisposed of at the end of the year, the rest having been settled by compromise or the tender of security.

Resumption Suits.—The number of suits brought by Government under section 30 of Regulation II. of 1819 as Zemindar, was 176, of which 128 were decisions in favour of Government estimated to produce an annual revenue of Rs. 12,885, and 37 in favour of individuals yielding a rental of Rs. 4,716, while 11 cases were struck off. These cases were numerous only in Bancoorah. The suits under Section 30 to assess petty tenures within Government estates, were 1,073; of the 614 cases of this class disposed of in the twenty-four Pergunnahs, 539 were struck off in consequence of the sale of the Government share in Chuck Hatoreah within which the tenures were situated.

The late period of the year when the Government orders were issued relating to the resumption of fisheries in navigable rivers rendered the number of settlements small. Up to the close of the year 298 claims were instituted; 67 were decided in favour of Government; 28 in favour of individuals; 70 blocks were settled; and the amount of jumma was Rs. 21,882.

Act XI. of 1859.—The only district in which sales for arrears were numerous was Chittagong. The average number of estates sold in each of the remaining 28 districts was 8. The number of estates was considerably less than last year, but their jumma was about one-half greater, and the average size of the estates nearly double.

Collectors' business.—The altered form of this statement prevents the usual comparison of the two years by divisions. The following memo., however, gives the general results :—

Years.	Number of cases on the file.	Number disposed of.	Number pending at close of the year.	Items disposed of not properly forming cases.	Total disposed of.
1858-59	89,204	74,337	14,867	958,006	1,032,343
1859-60	99,377	84,308	15,069	910,454	1,009,762

EXTERNAL COMMERCE OF MADRAS.

1859-60.

THIS report consists, as usual, of tabulated statements. The total external trade of Madras amounted, during the year under report, to Rs. 9,19.33,558. This shews a considerable increase over the previous year but is not equal to 1857-58. In the latter year the value of the trade was Rs. 9,62,84,797, and in 1858-59 it was Rs. 8,48,49,334. The following table exhibits the details :—

Comparative Statement of External Commerce by Sea during the official year 1859-60.

	Private Trade.			On account of Government.			Grand Total.
1858-59.	Merchandise.	Treasure.	Total.	Stores, &c.	Treasure.	Total.	
	Co.'s Rs.	Co.'s Rs.	Co.'s Rs.	Co.'s Rs.	Co.'s Rs.	Co.'s Rs.	Co.'s Rs.
Imports	2,69,71,811	1,39,92,897	4,09,64,708	23,36,597	3,03,310	26,39,907	4,36,04,615
Exports	3,36,99,791	56,61,731	3,93,61,522	1,00,016	66,805	1,66,821	3,95,28,343
Re-Exports	17,16,376	... ...	17,16,376	... ...	... ...	... ...	17,16,376
Total ...	6,23,87,978	1,96,54,628	8,20,42,606	24,36,613	3,70,115	28,06,728	8,48,49,334
1859-60.							
Imports	2,60,02,317	1,73,88,060	4,33,90,377	39,04,716	51,624	39,56,340	4,73,46,717
Exports	3,87,77,112	40,97,547	4,28,74,659	5,688	4,50,000	4,55,688	4,33,30,347
Re-Exports	12,56,494	... ...	12,56,494	... ...	... ...	... ...	12,56,494
Total ...	6,60,35,923	2,14,85,607	8,75,21,530	39,10,404	5,01,624	44,12,028	9,19,33,558
Increase	36,47,945	18,30,979	54,78,924	14,73,791	1,31,509	16,05,300	70,84,224

The value of the trade with the United Kingdom was in Imports Rs. 2,24,39,740, and in Exports Rs. 1,23,99,778, making a total of Rs. 3,48,39,518.

Of the *Imports* the chief items were the following :—

	Rs.
Apparel.—Gold and Silver Lace and Thread ...	2,16,864
Millinery	3,25,310
Wearing Apparel	1,61,255
Do. Military	1,37,599
Books and Stationery.—Books—British	1,18,116
Stationery	1,74,630
Cotton Goods.—Twist and Yarn—British ...	29,81,873
Do. Foreign	...
Thread	30,383
Piece Goods—Dyed	1,98,435
Do. Printed	3,37.109
Do. Plain	16,21,247
Malt Liquors	5,26,202
Ditto on Government Account	8,559
Manufactured Metals.—Brassware	5,486
Copperware	7,618
Cutlery	11,777
Hardware	64,645
Ironware	53,895
Platedware	56,079
Silverware	11,157
Silver Plate	4,450
Tinware	2,460
Types—Printing	20,875
Other Sorts	10,667
Medicines	23,075
Copper.—Bolt and Ingot	84,264
Rod	5,783
Sheet	72,540
Sheathing	7,298
Slabs and Tiles	...
Iron.—Bar and Bolt	3,21,606
Hoop	29,163
Nails	11,942
Rails	39,720
Rod	23,478
Sheet	34,300
Sweedish	4,206
Wire	8,609
Steel	54,958
Spelter	1,27,577
Tin Plates	38,011
Lead.—Pig	19,778
Do. Sheet	5,158
Brass.—Sheet	5,782
Do. Wire	8,288
Yellow Metal	14,414
Do. Sheathing	44,000
Quicksilver	7,693
Other Metals	1,883

Military Stores.—On Govt. Account	...	...	...	32,08,570
On Private Account	...	...	...	14,973
Oilman's Stores	...	...	...	1,72,126
Railway Materials	...	...	...	21,61,136
Saddlery	...	...	...	32,445
Spirits.—Brandy	...	...	...	60,183
Gin	...	...	...	20,950
Rum	...	...	...	967
Whiskey	...	...	...	5,764
Other Sorts	...	...	...	558
Tea	...	...	...	1,149
Tobacco.—Manufactured	...	...	...	2,325
Unmanufactured	...	...	...	1,466
Wines.—Cape	...	...	...	3,115
Champagne	...	...	...	59,077
Claret—English	...	...	...	23,392
Ditto French	...	...	...	10,105
Ginger	...	...	...	15,027
Hock	...	...	...	6,265
Lisbon	...	...	...	1,054
Madeira	...	...	...	35,357
Marcella	...	...	...	835
Moselle	...	...	...	12,361
Port	...	...	...	92,209
Sherry	...	...	...	2,33,315
Other Sorts	...	...	...	19,360
Woollens.—Alpacca	...	...	...	29,092
Blankets	...	...	...	7,617
Blue Cloth	...	...	...	2,643
Broad Cloth	...	...	...	21,489
Bunting	...	...	...	1,104
Carpets	...	...	...	4,487
Carriage Cloth	...	...	...	481
Circassian Cloth	...	...	...	2,411
Coburg	...	...	...	2,419
Doe Skins	...	...	...	12,224
Filter Cloth	...	...	...	...
Flannel	...	...	...	96,995
Gambroons	...	...	...	1,478
Medium Cloth	...	...	...	1,006
Merino	...	...	...	3,000
Orleans	...	...	...	2,256
Scarlet Cloth	...	...	...	17,360
Serge	...	...	...	2,393
Shawls	...	...	...	13,251
Tweeds	...	...	...	16,461
Other Sorts	...	...	...	55,237
Sundries	...	...	...	99,372
Treasure.—Gold	...	...	...	14,45,806
Silver	...	...	...	5,143,415

Of the *Exports* the chief items were the following:—

Coffee	...	...	...	Rs. 3,87,927
Cotton Wool	..	...	...	23,63,196
Drugs.—Myrabolanes	...	...	...	12,208
Senna	...	...	...	31,123

Dyes.—Catechu or Terrajaponica	
Indigo	38,70,750
Turmeric	24,413
Grain.—Rice	4,65,894
Wheat	...
Hides.—Tanned	9,06,753
Untanned	99,171
Molasses or Jagree	2,78,503
Oils.—Cocoanut	2,21,670
Fish...	1,22,356
Gingely	21,435
Manilla	54,485
Other Sorts	828
Seeds.—Gingely	1,96,954
Linseed	17,311
Manilla	2,018
Mustard	19,540
Valasaloo	...
Other Sorts	66
Sugar	24,39,141
Tobacco.—Manufactured	1,937
Wax and Wax Candles	38,841

The trade with America amounted to Rs. 1,51,739 of which Rs. 1,51,661 belong to *Imports* and only Rs. 78 to *Exports*. The chief items of the *Import* trade were :—

Cotton Goods.—Piece Goods, Plain	Rs. 11,494
Ice	1,06,909
Timber and Planks	5,153
Tobacco.—Unmanufactured	5,152

Trade with the Arabian Gulf :—

Imports	1,49,296
Exports	6,31,132
Re-Exports	1,718

The chief *Imports* were :—

Fruits.—Dates	37,906
Treasure.—Silver	1,06,060

The chief *Exports* were :—

Coffee	21,650
Grain.—Rice	4,23,861
Spices.—Cardamums	1,083
Ginger	35,655
Pepper	53,129
Do. White	17,603
Timber and Planks.—Poon	4,300
Teak	29,626

Trade with Ceylon.

Imports	56,76,089
Exports	63,91,861
Re-Exports	95,696

The chief *Imports* were :—

Cotton Goods.—Twist and Yarn—British ...	1,51,666
Ditto Foreign	...
Piece Goods—Dyed	4,061
Ditto Printed	2,401
Ditto Plain	5,54,559

Fruits and Nuts.—Betel Nut—Boiled	54,219
Ditto Raw	2,16,062
Military Stores.—On Govt. Account	4,40,789
Timber and Planks	1,53,616
The chief *Exports* were :—	
Cotton Wool	1,27,834
Cotton Goods.—Cotton Twist and Yarn ...	7,729
Thread	1,699
Piece Goods—Dyed	3,22,244
Do. Plain	1,82,441
Do. Printed	12,623
Eppapindy	66,755
Grain.—Paddy	3,45,717
Rice	25,74,233
Wheat	1,07,332
Provisions.—Fresh	67,555
Ghee	17,168
Salted	33,971
Silk Piece Goods	10,470
Spices.—Chillies	68,631
Trade with China.	
Imports	1,47,711
Exports	3,11,772

The principal article of import was tea, and of export cotton wool.

Trade with France.	
Imports	3,33,684
Exports	23,47,884
The chief *Imports* were :—	
Books and Stationery	1,07,213
Corks	17,788
Spirits.—Brandy	50,063
Wines.—Champaigne	13,556
Claret—French	34,133
Other Sorts	8,375
The chief *Exports* were :—	
Coffee	5,41,756
Cotton Wool	2,14,133
Dyes.—Indigo	6,65,200
Grain.—Rice	94,773
Seeds.—Gingely	7,21,095
Trade with the Maldive Islands ...	11,509
Trade with the Laccadive Islands ...	77,544
Trade with Mauritius.	
Imports	1,23,971
Exports	5,77,671
Re-Exports	8,003
Trade with New South Wales (only Exports)	23,778
Trade with Penang, Singapore and Malacca.	
Imports	5,60,417
Exports	4,13,232
Re-Exports	36,896

Trade with the Persian Gulf.	
Imports (chiefly horses)	1,74,992
Exports (chiefly coffee and rice) ...	3,24,779
Trade with Sumatra	60,353
Trade with Turkey (chiefly coffee and rice exported)	4,69,969
Trade with Arracan	1,10,034
Trade with Balasore (Imports only) ...	2,076
Trade with Bassein	10,171
Trade with Bombay.	
Imports	1,06,67,373
Exports	1,15,13,056
Re-Exports	90,174
The chief *Imports* were :—	
Cattle.—Horses	6,47,000
Cotton Goods.—Twist and Yarn—British ...	3,49,825
Piece Goods—Dyed	5,35,612
Ditto Plain	8,92,970
Grain.—Paddy	2,55,070
Rice	83,759
Wheat	44,647
Gunnies and Gunny Bags	2,06,274
Copper.—Sheet	3,75,124
Iron.—Bar and Bolt	1,04,453
Brass Sheet	80,355
China Cash	86,176
Salt.—On Government Account	2,08,527
On Private do.	1,309
Treasure.—Gold	8,50,957
Silver	39,51,445
The chief *Exports* were :—	
Coffee...	5,60,408
Cotton Wool	55,33,761
Cotton Goods.—Piece Goods—Plain ...	2,56,744
Fruits and Nuts.—Betel Nut—Boiled	2,27,494
Ditto Raw	3,37,568
Cocoanuts	3,67,231
Ditto Kernels	4,72,757
Other Sorts	565
Grain.—Rice	2,84,900
Naval Stores.—Coir and Coir Rope	1,76,131
Perfumery.—Oil Sandal	1,10,620
Agseh Seed	1,24,222
Silk.—Raw	1,47,667
Spices.—Cardamums	2,75,693
Pepper	4,62,033
Sugar	1,72,950
Timber and Planks.—Teak	1,77,702
Woods.—Jungle	1,63,795
Sandal	2,11,500
Treasure.—Silver—On Government Account ...	4,50,000
Trade with Calcutta.	
Imports	43,47,407
Exports	49,05,073

Re-Exports	4,62,266

The chief *Imports* were :—

Cotton Goods.—Twist and Yarn—British ...	6,14,719
Thread	2,877
Piece Goods—Dyed	1,06,366
Ditto Printed	13,795
Ditto Plain	4,74,241
Camphor	1,10,880
Gunnies and Gunny Bags	2,31,074
Malt Liquors	73,340
Silk Piece Goods—British	1,01,912
Treasure.—Gold	6,33,523
Silver—On Private Account	4,67,705
Do. On Government Account ...	51,624

The chief *Exports* were :—

Cotton Wool	8,95,287
Cotton Goods.—Piece Goods—Plain	4,60,396
Hides.—Tanned	2,34,034
Untanned	2,76,383
Precious Stones.—Pearls	1,08,105
Rubies	12,750
Salt.—On Government Account	...
On Private Account	57,309
Seeds.—Lamp Oil	1,02,375
Spices.—Pepper	2,13,716
Treasure.—Gold	2,980
Silver	20,47,500

The rest of the trade was with

Concan	...	...	6,54,745
Cutch	...	...	4,44,300
Goa	...	...	1,87,104
Indian French Ports			
Imports	...	2,55,545	
Exports	...	4,99,956	
Re-exports	...	2,32,507	9,88,008
Moulmein	...	... ...	8,55,822
Rangoon.			
Imports	...	1,47,418	
Exports	...	2,47,946	
Re-exports	...	1,17,309	5,12,673
Scinde	...	... ...	5,77,448
Travancore	...	... ...	3,07,126

The following statement exhibits the quantity of Imports and Exports by sea of each Zillah.

	Imports.	Exports.	Re-exports.
Ganjam	1,62,637	11,15,648	.....
Vizagapatam	11,10,935	23,24,126	21,468
Godavery	5,07,168	20,45,312	.....
Kristna	2,08,962	2,97,842	.....
Nellore	21,504	55,091	.....
Fort St. George	2,95,45,559	1,55,16,018	9,22,150
South Arcot	1,26,913	7,35,927	1,670
Tanjore	20,22,095	23,53,190	30,896
Madura	1,80,348	4,45,291	2,346
Tinnevelly	13,46,175	31,97,841	10,981
Malabar	61,57,108	58,39,307	2,55,843
North and South Canara ...	59,57,313	94,04,754	11,140

Ships and Tonnage.—The following table shews the ships and tonnage arrived at Madras Ports from external ports; and departed from Madras Ports to external Ports.

	Arrivals.	Tonnage.	Departures.	Tonnage.
Ganjam	24	5,861	74	32,394
Vizagapatam ...	47	21,218	90	46,220
Godavery... ...	124	38,972	194	74,164
Krishna	45	21,027	44	21,135
Nellore	29	4,141	42	7,885
Fort St. George ...	504	2,31,121	475	2,01,598
South Arcot ...	120	8,776	117	15,281
Tanjore	445	51,573	651	70,910
Madura	848	35,533	1,192	42,304
Tinnevelly ...	398	36,099	389	38,429
Malabar	1,986	1,42,065	2,062	1,41,583
Canara	2,240	78,108	2,292	87,580
Total ...	6,810	6,74,494	7,622	7,79,483

Of the Arrivals there were
Square rigged.

182	Steamers	under	British	Colours.
1,297	Ships	under	British	Colours.
12	,,	,,	American	,,
10	,,	,,	Arab	,,
1	,,	,,	Danish	,,
2	,,	,,	Dutch	,,
104	,,	,,	French	,,
4	,,	,,	Hamburgh	,,
1	,,	,,	Persian	,,
1	,,	,,	Portuguese	,,
1	,,	,,	Prussian	,,
2	,,	,,	Sardinian	,,
1	,,	,,	Swedish	,,

Native Craft.

3,922	,,	,,	British	,,
182	,,	,,	Arab	,,
147	,,	,,	Cutch	,,
8	,,	,,	French	,,
142	,,	,,	Portuguese	,,
791	,,	,,	Native	,,
6,810				

Of the Departures there were
Square rigged.

163	Steamers	under	British	Colours.
1,614	Ships	under	British	Colours.
12	,,	,,	American	,,
9	,,	,,	Arab	,,
1	,,	,,	Bremen	,,
4	,,	,,	Dutch	,,
138	,,	,,	French	,,
4	,,	,,	Hamburgh	,,
1	,,	,,	Montevidian	,,
1	,,	,,	Portuguese	,,
2	,,	,,	Prussian	,,
1	,,	,,	Russian	,,
2	,,	,,	Sardinian	,,
1	,,	,,	Spanish	,,

Native Craft.

3,987	Ships	under British	Colours.
168	,,	,, Arab	,,
186	,,	,, Cutch	,,
1	,,	,, French	,,
182	,,	,, Portuguese	,,
1,145	,,	,, Native	,,
7,622			

The following statements exhibit the quantity and value of cotton wool imported into and exported from the Madras Territories in 1859-60:—

COTTON IMPORTED INTO THE MADRAS TERRITORIES.

From	Quantity.	Value.
	lbs.	Rs.
Bombay	35,860	5,965
Concan	2,08,327	31,385
Goa	710	210
Total,	2,44,897	37,560

COTTON EXPORTED FROM THE MADRAS TERRITORIES.

To	Quantity.	Value.
	lbs.	Rs.
United Kingdom	1,66,62,840	23,63,196
Ceylon	9,07,977	1,27,834
China	11,20,516	2,93,034
France	15,43,044	2,14,133
Holland	7,85,509	1,10,040
Maldive Islands	164	26
The Straits	92,700	16,108
Bombay	3,56,88,639	45,33,761
Calcutta	54,24,935	8,95,287
Indian French Ports	2,75,346	41,545
Travancore	10,857	2,171
Total,	6,25,12,527	95,97,135

TRADE OF SIND.

1859-60.

On the 3rd of August 1860 the Commissioner of Sind submits to Government the report of the Acting Deputy Collector of Customs on the external trade of Sind for the year 1859-60.

The total value of the trade was Rs. 2,66,00,865.

Imports, ...	1,59,45,258
Exports, ...	94,47,128
Treasure, ...	12,08,488
	Rs. 2,66,00,865

This shows an increase of Rs. 7,52,091 over 1858-59, which was chiefly caused by the direct imports from Europe.

Imports.—The import trade amounted to Rs. 1,71,27,517, including Rs. 11,82,259 of treasure. This shows an increase of 10 per cent. over the preceding year. The increase was chiefly from England, Moulmein and Cutch. The chief items in which the increase took place were Railway materials Rs. 10,69,949; Cotton Piece Goods Rs. 3,43,068; and Metals Rs. 43,169. The only places from which a decreased value of goods was imported were Bombay, Malabar, Mekran, and Goa and Demaun. The decreased import from Bombay was chiefly owing to the direct importations from England. The import of Cotton Piece Goods from England was almost a new trade, and great benefit was expected from it.

The gradual increase of the Import trade is shewn in the following table:—

Countries.	1855-56.	1856-57.	1857-58.	1858-59.	1859-60.	Result of 1859-60 compared with 1858-59.	
						Increase.	Decrease.
England, ...	1,57,800	7,73,835	7,96,343	18,13,912	33,94,784	15,80,872	.....
Bombay, ...	55,81,212	52,27,429	91,83,285	1,27,53,649	127,28,155	.....	25,494
Concan, ...	2,464	4,510	1,655	8,315	15,667	7,352	.....
Cutch, ...	74,986	72,425	1,84,413	1,19,252	1,84,856	65,604	.....
France, ...	.....	.....	362	.....	3,509	3,509	.....
Goa and Demaun, ...	4,532	10,064	9,222	11,999	5,929	.....	6,070
Guzerat, ...	57,608	1,41,787	48,203	74,237	87,102	12,865	.....
Kattiawar, ...	1,29,322	2,01,954	1,24,739	1,03,166	1,16,865	13,699	.....
Malabar	97,632	90,388	97,146	1,00,771	51,086	.....	49,685
Mauritius, ...	1,894	8,930	81,000	323	.....	.....	.....
Mekran, ...	11,065	13,328	24,702	80,384	19,923	.....	60,461
Moulmein, ...	.....	.....	.....	76,280	2,53,830	1,77,550	.....
Persian Gulf, ...	1,79,619	3,12,007	2,59,942	2,63,770	2,65,811	2,041	.....
Total, ...	62,98,134	68,56,657	108,11,012	154,06,058	171,27,517	18,63,492	1,42,033

Exports.—The total value of the Exports was Rs. 94,73,358 which was Rs. 9,69,368 less than the preceding year. The places to which there was the most considerable increase of exports were Cutch, Kattiawar, Malabar and Mauritius. The principal decrease was to England, Bombay and Calcutta. The chief items of increase were Borax and Tincal, Indigo, Grain, and Wool. A number of camels and a quantity of grain were sent to Australia; these exports were the first of the kind over made. The chief items of decrease were saltpetre, seeds and oils exported to Europe, the horses, saltpetre, oil seeds and Cashmere shawls exported to Bombay, and the salt exported to Bombay.

The condition of the export trade for five years is shown in the following table :—

Countries.	1855-56.	1856-57.	1857-58.	1858-59.	1859-60.	Result of 1859-60, compared with 1858-59.	
						Increase.	Decrease.
England, ...	35,139	1,446	1,30,257	8,29,692	3,64,596	.....	4,65,096
France, ...	.....	93,390	3,90,111	4,44,795	3,57,309	.....	87,486
Bombay, ...	53,74,320	66,97,549	96,66,201	81,97,915	74,67,074	.....	6,29,841
Calcutta, ...	.....	13,074	28,000	2,11,111	21,068	.....	1,90,043
Concan, ...	.....	.....	6,971	.....	.....	.....	.....
Cutch, ...	1,12,401	1,38,310	1,99,008	1,86,307	2,38,687	52,380	.....
Goa and Demaun, ...	.....	231	1,997	3,397	3,954	557	.....
Guzerat, ...	11,747	15,647	1,800	4,931	43,889	38,958	.....
Kattiawar, ...	1,21,485	64,597	40,484	72,396	1,26,858	54,462	.....
Malabar, ...	1,69,154	1,45,933	52,060	2,50,567	5,25,142	2,74,575	.....
Mauritius, ...	17,568	28,538	68,066	48,153	92,991	44,838	.....
Mekran, ...	35,895	24,062	34,839	31,373	36,263	4,890	.....
Australia, ...	.....	.....	.....	.....	13,369	13,369	.....
Persian Gulf, ...	1,66,694	1,32,445	1,61,492	1,59,537	1,88,188	28,651	.....
Singapore, Ceylon, &c., ...	.....	.....	.....	2,552	.....	.....	2,552
	60,44,403	73,55,222	107,81,286	104,42,726	94,73,358	5,12,680	13,75,018

Ships and Tonnage.—The following is a statement of the ships and tonnage employed, for two years:—

1859-60.	Arrivals.		Departures.	
	No.	Tons.	No.	Tons.
Square-rigged vessels and Steamers, ...	101	60,994	101	60,043
Country Craft, ...	1,555	87,102	1,476	82,604
Exclusive of Boats engaged in the Coasting Trade between Kurrachee, Khetti and Seir Gunda.				
1858-59.				
Square-rigged vessels and Steamers, ...	96	52,927	101	56,554
Country Craft, ...	1,493	78,384	1,553	81,622

Vessels drawing 19 feet 6 inches entered the Harbour of Kurrachee in perfect safety, and as many as 30 vessels ranging from 500 to 1600 tons were at one and the same time accommodated in the Harbour, all of them swinging to their moorings; not a single accident of importance happened to any ship in either entering or leaving the Port.

General Remarks.—The total external trade of Sind is nearly 2¾ millions sterling. The export trade shews a decrease but it still continues, and with more vigour than previously, to command the attention of the mercantile community both European and native. The decrease in 1859-60 was chiefly owing to the high rates of freight consequent on the demand for vessels for the China expedition. Better results are anticipated from next year, when it is hoped that Wool may be added to the list of exports, and that the Cotton of Kutch and Kattiawar will be diverted to Sind by the establishment of screw presses there. Increased accommodation is much wanted at Kurrachee for ships and goods. The rapid increase in the customs collections is shewn in the following abstract.

Collected in	1855-56	...	...	Rs. 89,085
Ditto	1856-57	...	...	„ 1,00,694
Ditto	1857-58	...	...	„ 1,15,592
Ditto	1858-59	...	...	„ 2,54,476
Ditto	1859-60	...	...	„ 5,24,922

Of the *Imports* the chief items were the following :—

Books, &c.—Stationery,	...	Rs.	1,12,988
Cotton Goods.—Piece Goods, Colored,	...		11,78,941
Ditto, Plain,	...	...	54,45,555
Twist,	...	...	3,37,876
Fruits.—Dates,	...	...	1,42,643
Ivory, ...	...	...	1,21,395
Malt Liquors,	...	...	1,31,208
Iron.—Bar, Bolt, and Rod Iron,		...	2,50,205
Zinc, ...	...	...	1,48,498
Oilman's Stores,	...	...	1,60,234
Railway Materials,	...	...	21,09,789
Railway Machinery,	...	...	3,87,168
Silk, raw,	...	...	4,46,179
Spices.—Pepper,	...	...	1,42,825
Spirits.—Brandy,	...	...	1,97,201
Sugar,	...	...	2,16,047
Tea, ...	...	...	1,41,368
Timber.—Teak,	...	...	2,74,942
Tobacco,	...	...	1,17,854
Treasure.—Gold,	...	...	3,14,892
Silver,	...	...	8,67,367

Of the *Exports* the chief items were the following:—

Borax and Tincal,	...	...	62,045
Cattle.—Horses,	...	...	9,26,515
Drugs.—Koot Luckree,	...	...	1,73,361
Dyes.—Indigo,	...	...	5,37,644
Munjeet,	...	...	1,22,280
Grain.—Bajree,	...	...	1,69,410
Gram, ...	...	...	94,689
Rice, ...	...	...	3,54,264
Wheat,	...	...	77,756
Fresh Provisions,	...	...	1,54,298
Saltpetre,	...	...	7,48,121
Jingly seed,	...	...	6,28,489
Sursee seed,	...	...	7,91,546
Silk, raw,	...	...	1,79,750
Wool, Sheep's,	...	...	31,51,043
Woollen Goods.—Cashmere Shawls,		...	3,51,145
Treasure.—Gold,	...	...	334
Silver, ...	...	...	25,896

STATISTICAL REPORT OF THE UMRITSUR DIVISION.

Mr. R. N. Cust submits to Government a Statistical Report of the Division of Umritsur in the Punjab.

This Division is situated in the Baree, Rechna and Chuj Doabs. It was part of the country ceded to the British by Maharajah Duleep Sing in March 1849. The report, containing information to the end of 1859, reviews Umritsur after it has been ten years under British rule. It consists of three divisions, Umritsur, Goordaspoor and Sealkote. The two former are partly in the Baree and partly in the Rechna Doab; the latter partly in the Rechna and partly in the Chuj Doab.

The country is one unvaried plain, but the snowy range of the Himalayas is everywhere visible in the distance. It is watered by the rivers, Beas, Ravee and Chenab, and the mountain torrents Chukkee, Kirrun, Oojh, Ben, Busuntee, Deg and Eyk. There are no lakes. The canals "Huslee" and "Baree Doab" traverse the whole length of the Doab of that name. The high tracts depend on artificial irrigation and the low tracts on the rivers.

Area.—The area is 5,160·51 square miles, or 33,03,828 acres. The local unit of measurement is the Goomao, or the area that one pair of bullocks can plough. The details of the area and population are shown in the following table:—

STATISTICAL Return of Area and

Division.	District.	No. of mouzahs or townships.	Area in square British statute miles of 640 acres.	Area in acres.	*Malgoozaree or asseseed land.*		*Minhaie or unassessed land.*	
					Cultivated acres.	Culturable acres.	Lakhiraj acres in 1855.	Barren acres.
1	2	3	4	5	6	7	8	9
Umritsur,	Umritsur, ...	1,466	2,024·13	12,95,444	5,85,931	1,46,817	2,71,494	2,91,202
	Goordaspoor,	2,219	1,675·31	10,12,194	7,30,274	1,06,448	58,516	1,76,956
	Scalkote, ...	1,840	1,350·33	8,64,214	5,51,052	1,17,712	49,171	1,46,279
	Total. ...	5,525	5,049·77	31,71,852	18,67,257	3,70,977	3,79,181	6,14,437

Population in the Umritsur Division.

CENSUS OF 1855.

POPULATION.										
Hindoo.				*Mahommedan and others not Hindoo.*						
Agricultural.		Non-agricultural.		Agricultural.		Non-agricultural.				
Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Total.	No. of persons to each square British statute mile of 640 acres.	No. of acres to each person.	No. of Houses.	No. of persons per house.
10	11	12	13	14	15	16	17	18	19	20	21	22
3,13,045	62,321	1,20,245	1,30,449									
2,18,239	45,871	83,521	88,847									
3,24,152	96,765	1,12,380	1,15,007									
2,48,797	66,068	90,821	86,908									
2,96,466	1,10,500	1,01,648	84,318									
2,47,122	93,707	84,376	69,039									
3,57,095	84,988	1,03,464	1,68,643									
9,13,742	81,562	90,962	1,41,218									
23,13,628	6,41,782	7,87,417	8,84,429									
460·68	475·27	470·01	436·75									
1·39	1·34	1·36	1·46									
4,57,863	1,19,131	1,57,854	1,80,878									
5·8	5·38	4·98	4·88									

Population.—The number of inhabitants is, 23,13,628, as ascertained by the census of 1855, being 436·75 to the square mile in Umritsur, 470·00 in Goordaspoor, and 475·27 in Sealkote.

Religion.—The people are either Hindus or Mahommedans. Among the former the Sikhs, disciples of Baba Nanuk, are conspicuous by social importance, but not by numbers; proselytism has ceased.

Towns, &c.—There are 88 towns and 5,355 villages. In Umritsur there are 39 towns and 1,416 villages; in Goordaspoor 21 towns and 2,143 villages; and in Sealkote 28 towns and 1,796 villages. By far the most important is the city of Umritsur, which has a population of 1,26,739. It is the mercantile capital of the Punjab and Northern India, unrivalled in commerce, manufactures, wealth, and population.

TOWNS AND VILLAGES CLASSIFIED ACCORDING TO POPULATION.

Populations.	*Number of Towns, &c.*
2,000 to 3,000	53
3,000 to 4,000	16
4,000 to 5,000	7
5,000 to 8,000	8
8,000 to 10,000	2
20,000 to 30,000	1
Upwards of 100,000	1

Administration.—The system is that of the Punjab. The executive and judicial officers are the same, distributed in grades with precise subordination and unimpeded by conflicting jurisdictions. Over the Division is a Commissioner: over the District a Deputy Commissioner, supported by Assistants and Extra Assistants, European and Native: over each Pergunnah, four of which sub-divisions are in each district, is a Native Pergunnah Officer, vested with powers in every Department: and in each Pergunnah are two or more Police arrondissements under charge of a Police Officer, but subordinate to the Pergunnah authority. Along the high roads, and at outposts, are small stations occupied by detachments of Police, horse and foot. In every village, or cluster of villages, is at least one, and in each town a body of watchmen. Post Office runners are on every road, keeping up daily communication with the furthermost outpost.

Revenue.—The system of revenue is the village settlement for a limited term of years with the allodial proprietors, on the principle of securing to Government two-thirds of the net profits of the land. The whole division is regularly settled. On the 1st May 1859 the Kistbundee was Rs. 27,33,269, which, with

the Nuzzerana 51,389, makes a total revenue of Rs. 27,84,658. The revenue is collected by the Pergunnah officers in four or five instalments through the agency of 12,164 Lumberdars or village headmen; and the accounts of the village are kept by 1,054 Putwarees.

The details of land revenue for two years are shown in the following table:—

REVENUE.

	1858-59.	1859-60.
Villages	5,844	5,845
Lumberdars	12,121	12,068
Rubbee	Rs. 14,32,833	13,76,727
Khurreef	14,58,924	14,07,932
Government Jummah.		
Revenue	28,39,606	27,33,269
Nuzzerana	52,201	51,389
Total Government Jumma	28,91,808	27,84,658
Jagheer Jumma	6,97,333	6,77,537
Total Revenue	35,89,141	34,62,196

Land.—The kinds of land are as follows:—

STATEMENT OF SOILS AND LANDS.

	Acres.	*Revenue.*
Irrigated from Wells	6,07,645	13,02,579
Rain Crops	14,27,158	18,44,195
Alluvial	2,24,613	3,24,198
Total	22,59,416	Rs. 34,70,972
Culturable	4,48,285	...
Unculturable	5,85,434	...
	32,93,135	

The tenures of land are of the three known kinds:—

I.—*Zemindaree*, or joint and undivided area held by one or many.

II.—*Putteedaree.*—A. Perfect. Co-parcenary with divided area.

B. Imperfect. Co-parcenary with area partly divided and partly undivided.

III.—*Bhyachara.*—A. Perfect. B. Imperfect. Differing from No. II. in that the extent of interests of the shareholder is represented by the area of actual possession, and not by fractional shares or the family tree.

The number of landowners amounts to

	Number.	Average Revenue.
In Umritsur,	... 70,989	18 Rupees.
„ Goordaspoor,	... 68,593	20 „
„ Sealkote,	... 54,470	16 „

The majority cultivate the whole or a portion of their land. The details are as follows:—

LAND TENURES.

Zemindaree	... ...	541	
Putteedaree	Perfect	82	
	Imperfect	3,397	
Bhyachara	Perfect	11	
	Imperfect	1,799	
Total	... .	5,830	
Talookdaree	... .	100	under 206 Talookdars.

Total number of proprietors	... 1,94,052
Average area of each holding	... (acres) 15
Average revenue of each holding	... (rupees) 18
Total number of proprietary cultivators	1,83,183
Total number of non-proprietary cultivators	... 1,40,418

The tenants either occupy land at the will of the proprietor from season to season; or have a right of occupancy, guaranteed, hereditary and sometimes transferable, at certain rates, susceptible of judicial fixation; or they hold at fixed rates for the

term of settlement. The alienation of the public revenue derived from assessment of land, in the forms of revenue-free grants of villages and portions of villages, has been to an extent which will scarcely be credited in the next generation, when the great mass will have been gradually absorbed by lapses. Inasmuch as the parties who enjoyed these alienations made no contribution whatsoever to the State necessities, while they enjoy the advantages arising from order, guaranteed rights, and general extension of cultivation, it follows that the British Government have had the cost of governing the whole country, and enjoy only the revenue of a portion. At the time of occupation in 1849 every holding was investigated, and the orders of the Supreme Government solicited and obtained. All service, whether in the form of personal attendance, or prayers, has been remitted, and a portion of the revenue free holding resumed, or Nuzzerana imposed. No Nuzzerana is paid by independent chieftains. What is known by that name is in fact a portion of the land revenue of certain villages released to individuals for life or lives. Upon the revenue collected from Government villages there are certain guaranteed first charges which have to be paid;—provisions for widows, orphans, mistresses, courtiers, servants of the former Government, and some military or civil servants or other parties who have deserved well of our own. The total amount of such pensions is Rs. 1,53,655, which is distributed among 961 persons, of whom 802 are males and 159 females. The following is a statement of rent-free tenures.

RENT-FREE TENURES.

Jagheers ...	...	...	1,965
Jumma ...	...	7,92,218	
Deduct Nuzzerana	...	1,07,539	
Net Jagheer Jumma		Rs.	6,84,679 namely :—
Held for life	...	...	5,09,521
„ in perpetuity	...	...	1,35,803
„ for two generations		...	39,355
Total	...	...	6,84,679
Maafeedars ...	...	...	33,986
Land, in acres	...	...	1,33,482
Jumma ...	...	Rs.	2,11,246

Taxes.—There is a tax on intoxicating liquors. No liquor whether country made or imported can be sold without a license. There are 332 liquor shops in 286 villages, and the amount rea-

lised from them is Rs. 66,932. The sale of intoxicating drugs is controlled in a similar way. There are 225 shops in 270 villages, from which the sum of Rs. 44,953 is realised by the Muskarat tax. A considerable revenue is derived from the sale of stamped paper. The amount realised in 1859 was Rs. 89,576 for 1,15,559, stamps. An attempt was made to levy a tax on the non-agricultural classes for one year from 1st October 1859. The result was that it yielded only Rs. 3,36,944. A portion of the uncultivated lands, the property of Government, is leased to contractors who sell the firewood and grass, graze cattle and perhaps raise a trifling crop. There are no forests, fisheries, mines, gold washing or grazing tax in this Division.

Police.—All the territorial divisions for purposes of justice Civil and Criminal, and Police, are co-ordinate with those made for revenue purposes, and the same agencies are made use of. The Commissioner is Superintendent, and the Deputy and Assistant Commissioners are Deputy and Assistant Superintendents of Police. In each Pergunnah, or District sub-division, is a Pergunnah Officer of Police, who is also Revenue Officer, Judge of Small Cause Civil Court, and Magistrate of Petty Criminal Court: under him at particular posts or Thannahs, are Police Sergeants or Thannahdars, with a body of Policemen, armed with sword and matchlock, grouped at head quarters, or detailed at out-posts. The power of appointment and removal of the whole body, rests with the Deputy Superintendent or District Officer, subject to appeal to the Superintendent. No Military discipline is enforced, but the Policemen are uniformly clothed, drilled, and taught the use of their arms. For watch and ward, report of crime or remarkable occurrences, the proprietors of Land, and the Head Burgesses of Towns are responsible, and to enable these duties to be properly performed, in every village or cluster of villages, a village watchman, and in every town, a Municipal Police force, is entertained under the orders of the Government Police, but at the charge of the community. Wearing arms, offensive or defensive, sale of munitions of war, sulphur, saltpetre, gunpowder, lead, caps, is only allowed under special license, renewed yearly on stamp paper, to approved parties. This law is rigidly enforced under heavy penalties.

Criminal Justice.—The Commissioner as sessions and appeal Judge, the Deputy Commissioner as Magistrate, aided by his Assistants Covenanted and Uncovenanted, European and Native, and the Pergunnah Assistant Magistrates, dispose finally of all crimes, for which a sentence of fourteen years is the maximum punishment: sentences more severe than this can only be passed by the Judicial Commissioner of the Punjab, who

also disposes of appeals from the Commissioner, and exercises general Judicial and Legislative control, with the concurrence of the Lieutenant-Governor, who is vested with supreme Judicial power. No precise code of Criminal procedure exists, but the practice is simple, and understood. At the same time the subject of anticipation of crime is studied, as well as the punishment of offences. The predatory tribes, who live on plunder, are controlled by strict Police surveillance, and in Sealkote attempts are being made to locate them, and compel them to take to industrious habits, and tilling the soil: they are known as Sansees, Harnees, Pukhiwar, Surkebas, and Bouriahs. Tracking of offenders is also attended to, and offending villages are compelled to make pecuniary restitution, when the track ceases in their confines. The modes of punishment are five-fold;—Death, Transportation for life or terms, Imprisonment in Central or Local Gaol for life or terms, Stripes, and Fines.

Criminal Suits.—The criminal cases in 1857 numbered 3,836, of which 3,772 were disposed of, 48 transferred and 16 remained pending. In 1858 there were 4,264 cases, of which 4,204 were disposed of, 48 transferred, and 12 remained pending. In 1859 there were 3,826 cases of which 3,805 were disposed of, 12 transferred and 9 remained pending.

Civil Justice.—The same officers are vested with graduated powers for the decisions of Civil Suits, being guided both in law and practice by the Punjab Civil Code.

Civil Suits.—The following table shews the number and kind of Civil Suits for 1858 and 1859:—

Classification of different descriptions of original suits instituted in Civil Courts of the Districts of the Umritsur Division, during the years 1858 and 1859.

Number.	Division.	District.	Year.	Inheritance under the Muhomedan law.	Ditto ditto Hindoo law.	Ditto under any other law.	Claims in right of adoption.	Debts on bond or otherwise.	Suits of bankers and traders.	Religious suits connected with caste, &c.	Claims to hereditary and customary fee.	Damages for breach of contract.	Damages for direct trespass or personal injury.	Damages for libel, nuisances, or other individual injury.	Suits between masters or clients, and servants or agents.	Suits between landlords and tenants (of houses, &c.)	Suits between mortgagers and mortgagees.	Claims to subsistence, &c. between relation.	Suits connected with marriages.	Claims to partition.	Claim founded on right of pre-emption.	Claims to real property not included in the above.	Claims to personal property not included in the above.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
1	Umritsur	1859	6	4	22	14	5,513	415	11	8	24	18	49	48	57	82	23	154	82	31	373	313	7,247
		1858	14	23	8	0	4,511	930	23	21	4	22	5	28	27	123	13	44	56	8	174	276	6,310
2	Goordaspore	1859	9	2	0	1	6,780	2	5	16	7	19	2	56	58	53	4	324	30	11	198	188	7,765
		1858	0	0	1	0	3,438	1	0	5	1	14	1	53	25	46	1	270	28	5	171	87	4,147
3	Sealkote	1859	8	0	9	0	3,716	0	0	0	5	2	88	16	20	33	1	106	92	1	71	211	4,370
		1858	2	4	0	0	1,746	5	2	6	3	5	20	26	16	36	2	158	20	0	161	378	2,590
	Total	1859	23	6	22	15	16,809	417	16	24	36	39	139	120	135	168	28	584	204	43	642	712	19,382
		1858	16	27	9	0	9,695	936	25	32	8	41	26	107	68	205	16	472	104	13	506	741	13,047

Jails.—The number of Jails in 1859 was 3, containing 3,53,984 prisoners in 44 wards and 50 solitary cells, at a total expenditure of Rs. 27,286. The system of prisoners' work cost Rs. 10,680 and produced Rs. 18,677 leaving a considerable profit.

Miscellaneous.—There are 22 Government Serais of which the aggregate contracts amount to Rs. 257-6. There are 31 encamping grounds; 5 Government tanks; 170 Government Gardens or nurseries. The patients treated in the dispensaries during 1859 numbered 17,293, of whom 948 were in-door patients. The number of vaccinations were 18,968, of which 13,825 were decidedly successful. There were in that year 358 village and 27 Tehseel schools.

The villages possess 2,17,630 ploughs, 4,65,399 plough bullocks, 7,016 hackeries, 1,204 camels, 5,927 ponies, 2,603 mules, 22,079 asses, 10,189 bullocks, making a total of 49,018 beasts of burden. There are also 10,442 horses for riding, 1,59,585 buffaloes, 4,21,038 cows, 76,774 sheep, and 56,499 goats.

The *Government Gazette* contains a price current every month, but it is not trustworthy, and it is difficult to devise a scheme by which it can be made so. Attempts have been made to register the supply of rain, but owing to the inexperience of the agents much success has not been attained. The public buildings throughout Goordaspore and Umritsur are handsome and convenient. In Sealkote the same progress has not been attained. Schools are distributed throughout the three districts. A tax of one per cent. on the Revenue is levied for the maintenance of village schools, and Pergunnah schools are kept up from the public revenues. Uniform standard weights and measures are now used, and dealers using stones or false weights are punished. The Imperial currency of India has superseded all others, but the Nanukshahee currency is still used in tradesmen's accounts. There is no gold legal tender and no paper money.

In each district there are five committees to attend to local affairs. The members are both official and non-official. They administer distinct funds, arising from distinct sources, and are guided by distinct rules. The funds are five in number;—the Road, Local Agency, Ferry, Municipal and Prison Labour Commutation funds. Tanks and wells are numerous, particularly in the city of Umritsur and its environs. Serais for the accommodation of travellers are erected in various places, some by Government and others by private individuals. At every stage on every main road encamping grounds have been marked out for troops. Public vegetable gardens have been laid out at the head-quarters of the three districts. From the earliest

occupation attention has been paid to the improvement, conservancy and watch and ward of cities and towns, especially of the city of Umritsur. The funds are raised by an octroi or town tax on all commodities. At Umritsur the annual sum levied exceeds a lakh of rupees.

The following is a statement of the number of recruits drawn from the Umritsur division.

STATEMENT OF RECRUITS FOR THE ARMY.

	Villages.	Cavalry.	Infantry.
Umritsur ...	975	2,035	6,221
Goordaspoor ...	837	642	2,813
Sealkote ...	626	373	1,577
Total ...	2,438	3,050	10,611

MADRAS COURT OF SMALL CAUSES.

1860.

THE number of cases instituted in the Madras Court of Small Causes during 1860 was 19,778, and the value litigated was Rs. 5,02,417-6-9. This shews an increase of 1,404 cases and Rs. 74,137-8-5 over the previous year. In fees there was a corresponding increase of Rs. 8,694. The net amount credited to Government on this account was Rs. 63,294-8-3 while the expense of the Court was Rs. 63,700-7-11, which is a saving of Rs. 11,593-8-1 on the sum allowed by Government. The report consists chiefly of tables of which the following are the most important results.

Suits instituted.

English, ...	3,080
Native, ...	16,698
Proportion of English to native, ...	1 to 5·421
Suits defended by Attornies and Barristers, ...	356
Ditto by Vakeels, ...	3,241
Ditto in person, ...	16,181
Number of days on which the Court was open, ...	278
Average daily number of suits, ...	71·143
Judgment for plaintiffs, ...	9,129
Ditto for defendants, ...	830
Non-suited, ...	363
Struck off, ...	158
Compromised, ...	8,792
Undecided, ...	132

The following statement shows the business of the Court for 10 years.

Statement showing the number of Suits instituted in the Madras Court of Small Causes and the amount of Fees realized thereon during the years 1851, 1852, 1853, 1854, 1855, 1856, 1857, 1858, 1859, *and* 1860, *together with the progressive increase and decrease in each year.*

Year.	Number of Causes instituted.	Increase of Causes in each year.	Decrease of Causes in each year.	Fees realized.			Increase of Fees in each year.			Decrease of Fees in each year.		
				Rs.	A.	P.	Rs.	A.	P.	Rs.	A	P.
1851	23,668	.....	.....	37,417	7	0	.....	...	...	.....	...	...
1852	24,392	724	.....	43,349	2	3	5,931	11	3	.....	...	...
1853	25,192	800	.....	46,479	10	0	3,130	7	9	.....	...	...
1854	26,483	1,291	.....	49,281	10	0	2,802	0	0	.....	...	...
1855	26,199	.....	284	51,754	12	0	2,473	2	0	.....	...	...
1856	22,869	.....	3,330	43,682	14	6	.....	...	..	8,071	13	6
1857	17,674	.....	5,195	36,909	10	6	.....	...	...	6,773	4	0
1858	18,020	346	.....	43,564	13	6	6,655	3	0	.....	...	...
1859	18,374	354	.....	54,600	2	0	11,035	4	6	.....	...	...
1860	19,778	1,404	.....	63,294	8	3	8,694	6	3	.....	...	...

THE ADMINISTRATION OF MADRAS.

1859-60.

THE year chiefly embraces the administration of Sir Charles Trevelyan, who succeeded Lord Harris as Governor shortly before the close of 1858-59, and was succeeded by Sir Henry Ward within a few weeks of the close of 1859-60. Sir C. Trevelyan, in September 1859, visited the districts of the Godavery and the Kristna, and recorded many valuable suggestions on the improvement of Coconada and Dowlaisharam, the system of irrigation and navigation works, the position of Masulipatam, and the working of the Inam Commission. In January 1860 he visited Cuddalore, the French Settlement at Pondicherry, Negapatam, the Coast terminus of the Great Southern India Railway, Combaconum, Tanjore, Trichinopoly, Madura, the Pulney Hills, Dindigul, Coimbatore, and the Neilgherries, and returned to Madras by way of Salem and the Madras South West Railway early in March. On all questions connected with these places he wrote a series of interesting minutes.

JUDICIAL.—*Civil Justice.*—The Civil Procedure Act, was introduced on 1st January 1860, but the progressive increase of litigation as shewn in the number of suits instituted will neutralise the advantages derivable from its more simple forms.

Suits instituted.

1855.	1856.	1857.	1858.	1859.
105,577	121,670	126,105	143,389	163,269

This is an increase of 64 per cent. To meet it the only augmentation to the Judicial Establishment consisted in the creation of five new District Moonsiff's Courts, and the temporary appointment of three Principal Sudder Ameens. The result was that no less than 88,132 original suits remained unadjudicated at the close of the year, being 24,397 in excess of the

balance of the previous year. The value of the matter in dispute in these undecided suits amounted to 2,14,58,221 Rupees. The Judicial officers were not to blame, as they delivered judgment in 5,967 suits in excess of those of the previous year. The people acquiesced in 18,077 out of 24,008 appealable decrees. Thus·24 per cent. only were appealed. Of all the original suits 47,437 or 86 per cent. were in favour of the plaintiffs. Of the 5,931 decrees appealed from, 2,776, or 64 per cent., were affirmed by the Appellate Court, while only 1,560, or 36 per cent., were modified or reversed out of the 4,336 remaining. The amount of business on the Sudder Court may be seen from the fact that the applications for the admission of special appeals, which had been yearly increasing in number, had risen from 530 in 1855 to 935 in 1858, and in 1859 were 917; the regular appeals amounted to 30; the admitted special appeals to 205; the civil petitions to 639; the criminal petitions to 222; and the criminal trials, referred and called up, to 169; making an aggregate of 2,218 cases actually brought on the file during the twelve months, besides those pending from the previous year.

Criminal Justice.—There were 230,551 persons brought before the Police and Magistracy, charged with petty offences. Deducting 83,597 persons, or 37 per cent., who were released upon the charges preferred against them being compromised, and 949, who were under trial at the close of the year, it appears that about 42 per cent. of those whose cases were duly investigated were convicted, and 58 per cent. were acquitted. Of the whole number of persons summoned, 8 per cent. appeared before the Village Police, 89 per cent. before the District Police, and 3 per cent. before the Magistracy. Of persons charged with crimes and misdemeanors, there were 3,955, or 14 per cent. fewer than in the previous year. The total number accused was 24,660. Of these 15,790, or 64 per cent., were discharged by the Police and Magistracy, leaving 8,870 persons, who were put upon their trial. The trials resulted in the conviction of 42 per cent., the release of about 52 per cent., and the holding to security of 6 per cent. Of the offenders convicted by the Fouzdary Adawlut 51 were sentenced to be hanged and 33 to be transported for life.

Police.—The organization of the new constabulary had only commenced in a few districts up to the end of the year and the returns as to the state of crime are consequently imperfect. The following shews the work done in carrying out Act XXIV. of 1859.

Districts.	Area.	Population.	Estimated requirements.			Progress made up to 30th April.							
			Total Force to be raised.	Proportion to Population.	Cost.	Force raised.	Area of District undertaken.	Its population.	Jails.	Military relieved.			
										Veterans.	Regulars.	Total.	
North Arcot ...	7,526	1,452,550	1,510	1 to 962	1,74,900	1,272	5,490	1,151,457	2	300	36	336	
Chingleput ...	3,000	611,200	739	805	84,690	333	...	15,000	2	100	25	125	3 Companies,&c.
South Arcot ...	4,933	1,185,625	1,144	1,036	1,25,620	595	1,365	411,276	1	258	...	258	1 Company and 40 men.
Tanjore ...	3,720	1,580,264	1,534	1,030	1,67,867	1,414	822	455,987	1	...	120	120	
Coimbatore ...	8,099	1,227,208	1,098	1,118	1,26,068	341	683	129,676	1	...	200	200	2 Companies.
North Canara ...	4,300	483,336	1,060	456	1,11,880	770	1,027	47,611	...	...	581	581	
Nellore ...	8,000	935,700	1,098	853	1,26,000	159	...	...	1	200	...	200	2 Companies.
Madura ...	8,373	1,792,737	1,380	1,299	1,31,300	100	...	...	...	...	15	15	½ Company.
Salem ...	7,610	1,268,200	1,184	1,071	1,55,100	50	...	...	...	...	...	...	
Total ...	55,561	10,538,826	10,747	...	12,03,425	5,034	4,787	2,211,007	8	858	962	1,820	

N. B.—The force raised up to end of May exceeds 6,000 men. The area undertaken is nearly 10,000 square miles. Other military detachments have been relieved.

The number of cases disposed of in the Presidency Police Courts was : —

Town Police Court,	in 1858	7,644 cases,	in 1859	8,366 cases.
Vepery Police Court,	ditto	4,255 ditto,	ditto	6,805 ditto.
Royapetta Police Court,	ditto	4,439 ditto,	ditto	5,484 ditto.

The number of Coroners' Inquests held was 196 or 31 less than the previous year. The Mortuary Report shews 10,266 cases, of death within the jurisdiction of the Supreme Court, of which 1,061 were from cholera. Of the whole 3,299 were males, 3,183 females and 3,784 children. The Jail Report shews that 6,204 persons were in jail on 30th April 1860, while 7,343 had been admitted during the year, and 1,188 were debtors. Of the convicts only 676 could read and write. As to mortality 192 died in the 1st year of imprisonment and 332 thereafter.

Revenue.—The season was less favourable than the average owing to drought in some districts and inundation in others. The cost of labor rose greatly during the year, and was generally nearly 50 per cent. higher than before. The following abstract shows the revenue of the last five years :—

	1855-56.	1856-57.	1857-58.	1858-59.	1859-60.
	Rs.	Rs.	Rs.	Rs.	Rs.
Land Revenue, ...	3,58,91,715	3,75,09,713	3,61,81,771	4,15,20,294	4,07,31,998
Abkarry or Tax on Spirituous Liquors,	20,78,351	23,12,853	27,37,858	28,33,591	29,28,240
Salt, ...	54,14,154	54,04,795	56,92,310	60,24,313	64,58,763
Sea Customs, ...	12,41,730	13,09,646	12,80,291	13,91,409	23,55,639
Moturpha or Tax on Professions, &c.,	10,97,337	10,82,974	10,51,534	11,03,253	10,94,618
Stamp Revenue, ...	6,67,845	7,07,716	7,50,737	8,07,179	8,55,098
Frontier Customs,	1,91,242	1,95,319	1,93,806	1,96,062	2,39,637
Extra Revenue, ...	2,16,079	2,09,805	2,45,410	2,20,150	2,87,741
Total, Rupees ...	4,68,34,808	4,88,00,934	4,81,33,717	5,40,96,251	5,49,51,764
£ ...	4,683,480	4,880,093	4,813,371	5,409,625	5,495,176

Since 1855-56 the revenue has thus risen upwards of three quarters of a million sterling. The area under occupancy in

1859-60 comprised 13,663,355 acres, or 550,593 acres in excess of that of the preceding year. There was a considerable increase on the following districts in which there were reductions of assessments.

Area of land under occupancy.

	Acres.
Nellore, ...	48,172
Bellary, ...	116,711
North Arcot, ...	33,446
South Arcot, ...	29,462
Trichinopoly, ...	10,735

The following abstract gives the Foreign Trade of the Presidency for a series of eleven years. The Coasting Trade being exempt from Customs Duties, is excluded from the Statement. Taking merchandise and treasure together, the official value of the Import Trade has risen from £1,769,079 to £4,734,671, and that of the Export Trade from £2,980,843 to £4,333,034 between 1849-50 and 1859-60. In the same period the gross duty has risen from £85,642 to £231,475, the high revenue of the last year being owing to enhanced rates of duty:—

	Imports.			Exports.			Re-exports.	Gross
	Merchandize.	Treasure.	Total.	Merchandize.	Treasure.	Total.	Merchandize.	Duty.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1849-50	1,34,54,281	42,36,514	1,76,90,795	2,29,28,008	68,80,427	2,98,08,435	7,92,295	8,56,420
1850-51	1,35,44,924	60,42,437	1,95,87,361	2,56,37,826	44,97,691	3,01,35,517	6,15,521	8,92,262
1851-52	1,34,23,536	61,79,148	1,96,02,684	2,49,65,225	88,54,659	3,38,19,884	5,96,000	9,41,845
1852-53	1,32,77,606	1,08,78,112	2,41,55,718	3,28,50,486	41,32,943	3,69,83,429	6,09,212	9,70,265
1853-54	1,63,52,337	1,10,60,291	2,74,12,628	2,99,77,350	1,06,94,826	4,06,72,176	7,81,096	10,26,203
1854-55	1,91,24,962	64,81,955	2,56,06,917	2,39,48,083	81,00,456	3,20,48,539	7,17,474	10,02,863
1855-56	2,31,33,876	1,37,16,696	3,68,50,572	2,91,70,905	44,18,750	3,35,89,655	6,64,364	11,89,972
1856-57	2,35,25,244	1,70,38,582	4,05,63,826	3,67,26,978	33,33,678	4,00,60,656	7,78,134	12,52,487
1857-58	2,46,85,453	1,86,23,162	4,33,08,615	4,03,65,161	1,17,00,866	5,20,66,027	9,10,155	12,32,416
1858-59	2,93,08,408	1,42,96,207	4,36,04,615	3,37,99,807	57,28,536	3,95,28,343	17,16,376	13,11,689
1859-60	2,99,07,033	1,74,39,684	4,73,46,717	3,87,82,800	45,47,547	4,33,30,347	12,56,494	23,14,750

The revenue was collected with facility. The "Local Funds" including Rs. 85,515 the balance of the previous year, shew a total of Rs. 2,45,688 and an expenditure of Rs. 1,16,979. Local Gazettes were issued in every district except 3, from the district presses. The estimated value of the work done was Rs. 42,299 the income Rs. 29,496 and the expenditure Rs. 19,492. The appointment of Uncovenanted Officers as Deputy Collectors and Magistrates was found most advantageous. The 3 Districts of Guntoor, Masulipatam and Rajahmundry were formed into 2 and that of Canara was broken up into 2. The collec-

torates of Madras and Tanjore were amalgamated and a new Court established in Tanjore. Impressment whether of labour or carriage was abolished. The only Municipal Associations in the Provinces were those at Salem and Vizagapatam, voluntarily established by the more enlightened of the residents.

Freehold Titles.—The principle of granting land on freehold tenure, by permitting the redemption of the Land Tax, was introduced to the following extent:—

(1.) Lands now occupied wholly or in part, by buildings and paying quit-rent to Government, may, at the option of the owner, be converted into freeholds by payment of a sum equal to twenty times the annual quit-rent paid at the time of conversion.

(2.) Lands hereafter required for building purposes are to be sold by auction at an upset price of twenty times their yearly quit-rent or tax, and are thereafter to be held by the purchaser on freehold tenure.

(3.) Lands on the Neilgherries, Shervaroy, and Pulney Hills, and *coffee* lands in the Wynaad talook of Malabar, are similarly treated, except that the upset price of building sites on the hill tracts has been specially fixed at 10 Rupees or £1 per acre.

(4.) Private lands subject to quit-rent in the town and suburbs of Madras may be converted into freeholds on the same terms, *viz.* twenty years' purchase of the quit-rent.

(5.) For town lands *not* liable to quit-rent, freehold titles are granted without payment, on good *primâ facie* evidence of title being afforded.

(6.) Owners of lands coming within the scope of the rules, who are unable or unwilling to redeem their quit-rent, can obtain permanent title deeds, with a reservation of the quit-rent and the option of hereafter converting their lands into freeholds.

(7.) The liability of landholders to payments for municipal or other local purposes, and for the Moturpha, is not affected by the conversion into freeholds.

In all the above cases title-deeds are granted under the seal of Government.

By a more recent order, on the Neilgherries and Shervaroys, allotments of land for coffee and farming are also sold without any upset price, subject to an annual quit-rent of 1 Rupee per acre, with the power of conversion into freeholds at twenty years' purchase of the quit-rent.

The assessment on coffee lands in Wynaad was also fixed at 2 Rupees per acre on the area actually under coffee; no tax, however, being levied until the plants are two years old. It is

open to planters to make proposals for a fixed assessment over their entire estates. Land planted with any other crop than coffee pays the usual local assessment. The Export Duty on coffee, was abolished by Act X. of 1860.

Revenue Survey and Settlement.—In the Godavery, Kristna, Trichinopoly and Salem districts the demarcation of 1,233 villages for survey was completed, comprising an area of nearly 3,200 square miles ; 1,791 villages were classified for assessment, containing an area of about 3,340 quare miles ; and 785 villages, with an area of 2,186 square miles, were surveyed. The total cost was—for settlement Rs. 2,54,734 and for survey Rs. 1,96,605.

The Inam Commission was this year organised and the following rules sanctioned on the 9th August 1859. Proved possession of an Inam for fifty years is to constitute a valid title. In the case of personal grants, whether hereditary or conditional in their terms, an option is allowed to the holders to convert their terminable tenures into permanent freeholds, with unrestricted powers of alienation and upon reasonable terms, in commutation of the reversionary right of Government in the Inams. These terms are the immediate and permanent charge of an annual quit-rent of one-eighth of the full assessment in the case of inamdars having heirs competent to continue the family; of one-fourth when there are only terminable heirs; and of half when the incumbent is without heirs altogether. The lowest rate, calculating at simple interest only, is equivalent to a total exemption from assessment for a period of 140 years, the second rate to an exemption for sixty years, and the highest rate to an exemption for twenty years.

The enfranchisement of the tenure is compulsory on alienees, because it is incumbent on them to cure their defect of title. In other respects they are not placed in a less favorable position than members of the original family, as they have fairly, and usually for a good consideration, acquired the right of the original inamdars. The inamdars are further allowed to absolve themselves from the quit-rent thus stipulated for, by the payment, once for all, of twenty times its amount.

Inams held for a shorter period than fifty years, if held on competent authority, are likewise to be recognized absolutely, or to be admitted to a compromise. The terms of the compromise are, the immediate imposition of a quit-rent on the Inam, equal to one-fourth, half, or two-thirds of its full assessment, according to the length of possession and the circumstances attending the grant. The resumption, or rather the full assessment, of an Inam is totally disclaimed, except when it has been obtained

through fraud of the present incumbents, when the period of its grant has expired, or its conditions are not fulfilled.

Inams held for religious and charitable objects thus confirmed, will endure so long as the conditions of the grant are fulfilled. On the validity of an Inam being established on the foregoing principles, a title deed is issued to the inamdar, specifying the terms of his future tenure, which is to secure him and his successors from any further scrutiny by Government regarding the origin of the Inam.

Inams held for Revenue and Police services no longer required, are to be enfranchised and confirmed, subject to a quit-rent not exceeding half of the full assessment, to be imposed according to the nature of the service of which the holders are relieved; and excesses, or surplusage, in the Inams of Village, Revenue, or Police Officers, over and above what may be considered a fair remuneration for these offices, are to be similarly treated. The quit-rent accruing to Government from these sources is to meet the charges of the Police, or to supplement deficiencies in the emoluments of village establishments.

EDUCATIONAL.—A Matriculation, a Bachelor of Arts and a Bachelor of Laws University Examination took place during the year. At the first 23 passed out of 52 candidates, and of these 4 in the 1st class. At the second 5 passed out of 10, and of these 1 in the 1st class, 2 in the 2nd and 2 in the 3rd. At the B. L. Examination 1 out of 4 candidates passed. At the Presidency College there were on 30th April 286 students of whom 21 were in the legal branch against 258 the previous year. There were 535 normal students and pupils against 603 in the Madras School. In that at Vellore there were 26 students and 183 pupils; at Mayaveram 19 students and 107 pupils at Cheyúr, 9 students and 59 pupils.

Out of 266 candidates, male and female, for the various grades of teacher, 134 passed and of these 196 in the 8th and 9th grades. A sum of Rs. 33,212-11-0 was paid as Grants-in-Aid.

The following table shows the distribution of the schools aided by Government, according to the latest returns:—

	Number of Schools of or above the grade of Government Zillah Schools.	Number of Pupils.	Number of Schools of the grade of Government Talook Schools.	Number of Pupils.	Number of Village Schools.	Number of Pupils.	Total Number of Schools.	Total number of Pupils.
1st Division,	4	477	2	80	...	..	6	557
2nd ditto, ...	1	233	...	...	...	...	1	233
3rd ditto, ...	8	1,744	30	1,919	...	...	38	3,663
4th ditto, ...	1	116	8	210	...	...	9	326
5th ditto, ...	8	660	5	165	147	4,809	160	5,634
Malabar and Canara, ...	2	196	9	608	...	...	11	804
Grand Total,	24	3,426	54	2,982	147	4,809	225	11,217

The total expenditure was as follows, generally.

	Rs.	*As.*	*P.*
Direction and Inspection	1,35,000	0	0
University	7,412	10	6
Government Colleges and Schools ...	2,95,000	0	0
Grants-in-aid	33,000	0	0
Buildings	4,000	0	0
Purchase and publication of Books, provision of Stationery, &c.	21,500	0	0
Total, Rupees	4,95,912	10	6

PUBLIC WORKS.—The total expenditure was Rs. 48,79,837 as follows:—

New Works	Rs. 20,09,244
Repairs	„ 28,46,196
Municipal Com.	„ 24,397

The sum allotted was Rs. 53,35,707. But part of this was not assigned till the year was nearly at a close, and several of the works were obstructed by the breaking out of cholera among the labourers.

Railroads.—On the South West Railway at the beginning of the official year, the length of line open for traffic was 96 miles from Madras to Goriattum. On the 16th January 17 miles more were opened to Amboor, and on the 1st February 10 miles to Vaniembaddy—making a total length of 123 miles.

The following shews the traffic:—

PASSENGERS.

1st Class	2,064	... Rs.	9,141	4	3			
2nd ditto	10,871	... „	16,613	0	10			
3rd ditto	7,40,219	... „	3,06,619	9	1			
						3,32,373	14	2

GOODS.

	Ind. Mds.							
1st Class	11,59,738	... Rs.	1,21,154	10	8			
2nd ditto	13,46,309	... „	1,66,757	0	2			
3rd ditto	87,293	... „	17,762	5	10			
4th ditto	16,049	... „	5,940	4	3			
						3,11,614	4	11
		Total, Rupees ...				6,43,988	3	1

On the North West Railway works were under execution on the first six Districts, comprising a length of 121 miles. Working surveys had still to be prepared for the line from District 8 to Moodgul, the point of junction with the Bombay Railway, a distance of 200 miles; to 70 miles of which no Engineers had been appointed. The total expenditure sanctioned by Government from the commencement of the works in March 1853, up to the 31st December 1859, amounted to Rupees 2,42,98,019-9-2. A sum of Rs. 1,03,119-14-2 was advanced to the Great Southern of India Railway, and the total expenditure sanctioned from the beginning of the works in October 1858 to 31st December 1859 was Rs. 2,55,060-2-3. A sum of Rs. 3,10,000 was paid to the Madras Irrigation Company up to 30th April 1860.

MARINE.—In 1859, 974 square-rigged vessels with an average tonnage of 91, and 742 Dhoonies with an average tonnage of 51¾, passed through Paumben Channel. The following shews the receipts and disbursements connected with port charges and dues at the various ports:—

NAMES OF PORTS.	Receipts.			Disbursements.			Total balance to credit of the Port.			Total deficit against the Port		
	Rs.	As.	P.	Rs.	As.	P.	Rs.	As.	P.	Rs.	As.	P.
Bimlipatam ...	1,515	1	10	270	8	0	2,694	10	3	0	0	0
Vizagapatam ...	1,784	11	8	2,022	13	6	0	0	0	952	7	6
Coconada ...	6,048	12	0	4,969	5	1	2,790	13	10	0	0	0
Masulipatam ...	986	10	1	4,477	4	1	0	0	0	6,512	12	11
Madras	44,134	10	7	26,662	12	2	50,459	10	2	0	0	0
Cuddalore ...	979	13	6	1,210	11	6	454	12	11	0	0	0
Tranquebar ...	858	0	10	126	0	0	1,629	15	2	0	0	0
Negapatam ...	2,638	13	9	1,135	1	1	4,462	5	8	0	0	0
Tuticorin ...	4,522	4	6	3,486	1	6	1,876	12	4	0	0	0
Cochin	4,447	10	4	3,480	1	8	0	0	0	570	1	1
Calicut	2,764	5	1	2,033	3	8	2,796	4	11	0	0	0
Tellicherry ...	826	12	1	746	15	4	811	7	7	0	0	0
Cannanore ...	1,512	4	3	89	7	5	3,304	10	2	0	0	0
Mangalore ...	2,122	1	11	619	12	7	2,264	11	11	0	0	0
Total, Rupees...	75,142	0	5	51,330	1	7	73,546	2	11	8,035	5	6

Five ships, of which two were French and the rest British, were wrecked off the coast during the year. The Madras Pier was commenced on 17th September.

FINANCIAL.—The following statement shows, in one view, the estimated revenues and charges of the several departments of the Administration, for the year ended 30th April 1860; the proportion of income derived from land and other sources of revenue, and the proportion which the charges of each department bore to the aggregate income—exhibiting also the manner in which this income was appropriated :—

Financial Statement.

Income.	Total estimated amount for 1859-60.	Percentage, *i. e.* the proportion yielded by each separate source of Revenue.	Charge.	Total estimated amount for 1859-60.	Percentage, *i. e.* proportion of Income allotted to each branch of charge.	
			Political Disbursements, viz.:—			
Land Revenue	403,22,900	63¾	Carnatic Stipends, Tanjore Stipends, and Interest on Tanjore Debt	27,53,900	4¼	A.
			Compensation, Pensions, &c.	23,91,300	3¾	
			(A) Total, Rs. 51,45,200 or 8 per cent.			
Salt	61,21,290	9¾	*General Charges.*			
			Salaries and Establishments in the General Department	61,35,300	9¾	B.
			Public Instruction	5,54,100	1	
Tribute	34,46,430	5½	Charitable Contributions	13,50,000	2	
			(B) Total, Rs. 80,39,400, or 12¾ per cent.			
			Judicial Charges.			
Abkaree	28,16,440	4½	Supreme Court, including Small Cause Court, &c. ...	3,65,600	½	C.
			Court of Sudder and Fouzdary Adawlut	2,58,850	½	
			Judicial Charges in the Provinces	20,48,880	3¼	
			Police and Magisterial Charges at the Presidency ...	2,78,100	½	
Land and Sea Customs ...	21,06,080	3¼	Ditto in the Provinces	20,55,870	3¼	
			(C) Total, Rs. 50,07,300, or 8 per cent.			

Moturpha	10,85,390	1¾	*Revenue Charges.*			
			Board of Revenue	2,44,000	¼	D.
Postal Collections	9,24,400	1½	Other Charges of Collecting the Revenue	61,01,800	9⅝	D.
			(D) Total, Rs. 63,45,800, or 10¼ per cent.			
			Marine Charges.			
Stamps	7,41,900	1¼	Establishment, &c., of the Superintendent of Marine and the Master Attendant, Coal, Establishment at the Out Ports, &c.	2,84,600	½	
Miscellaneous, *i. e.* Fees and Fines in the Judicial Department, Abkaree Collections in the Military Department, Extra Revenue, Mint Seigniorage, Local Fund, &c., &c.	13,61,270	2	*Military Charges.*			
			European Force	73,44,200	11½	E.
			Native Force	1,34,16,150	21¼	E.
			Staff of the Army and Military Offices	29,44,400	1¾	E.
			Commissariat Charges	68,85,000	11	E.
			Stores	27,57,400	4¼	E.
			Contingencies	96,55,250	15¼	E.
			(E) Total, Rs. 4,30,02,400, or 68 per cent.			
Extraordinary Receipts, *i. e.* Value of Copper used in Coinage, Sales of Provisions, Stores, Horses, Refunds of Charges, &c.	33,30,300	5¼	Extraordinary Charges	2,28,200	½	
			Public Works, Ordinary.			
			Salaries, Establishment and Contingencies of the Public Works Department, including those of the Consulting Engineers of the Railway and Irrigation Companies	17,38,500	2¾	F.
			Repairs of Various Works	33,75,300	5¼	F.
Profit and Loss	9,24,000	1½	(F) Total, Rs. 51,13,800, or 8 per cent.			
	6,31,80,400	100	*Public Works Extraordinary.*			
			Charges for Construction of Works	24,36,700	3¾	
Expected Deficit to be met out of the Cash Balance in hand	1,24,69,000	19¾	Total Public Works, Rs. 75,50,500, or 11⅝ per cent.			
			Profit and Loss, *i. e.* Loss sustained in the rates of Exchange, &c.	46,000		
Total Rupees ...	7,56,49,400	119¾	Total, Rupees	7,56,49,400	119¾	

The deficit was 19¾ per cent. or nearly one-fifth of the territorial income. The cash balance on 30th April 1859 was 252 lakhs, on 30th April 1860 was 241 lakhs.

The Tanjore Debt was discharged on 31st March 1860. There was a total monthly increase in the fixed establishments of Rs. 24,910, the greater part of which was special.

Mint.—There was a small improvement in the amount of Bullion on the previous year, but the expectations entertained during the very prosperous years, 1855-56, of a permanently vast augmentation of the export trade from all the ports of the Presidency, and a consequent increasing influx of the precious metals, were not realized. In 1857-58 the Bullion amounted to Rs. 80,44,753, in 1858-59 to Rs. 48,17,375 and in 1859-60 to Rs. 53,02,798. The following was the out-turn of 1859-60:—

Balance on hand on the 1st May 1859	10,12,460	6	7			
Merchant's Silver Bullion purchased	53,02,798	14	0			
Amount of Public Bullion received during the year	3,55,792	9	8			
				66,71,051	13	10
Amount of Silver Coins remitted to the General Treasury	56,62,073	2	0			
Balance remaining in the Mint ...	10,21,346	0	11			
				69,83,419	2	11
	Excess ...			12,367	5	1

The entire coinage of the year was:—

	No. of Pieces.	Total Pieces.	Value.		
Silver Single Rupees ...	44,40,221				
Ditto Half ditto ...	6,80,118				
Ditto Quarter ditto ...	10,92,237				
Ditto Double Annas ...	48,66,271				
		1,10,78,847	56,62,073	2	0
Copper Half Annas ...	1,07,05,030				
Ditto Quarter ditto ...	2,71,90,202				
Ditto Single Pies ...	2,75,73,600				
		6,54,68,832	9,02,991	9	6
Total ...		7,65,47,679	65,65,064	11	6

The net balance in favour of the Mint was Rs. 2,58,395-9-9.

POLITICAL.—General Cullen was succeeded by Mr. F. N. Maltby, M. C. S., as Resident in *Travancore and Cochin*. The Rajah of *Podoocottah* was deprived of the title "Excellency" because of his reckless prodigality and folly. The investigation

before the Supreme Court of the claims against the estate of the late *Nawab of the Carnatic*, was actively prosecuted. Mr. D. R. Phillipps, of the Sudder Court, was deputed to Tanjore as Commissioner to close the affairs of the Rajah of *Tanjore*. At *Canara*, soon after the deportation to Timor of the Sawunth family and their adherents, the peace of the country bordering on the Goa Territory was again disturbed by the aggressions of a body of bandits. Several were captured and the rest dispersed. The Chepauk Agency was continued the whole year under Act XXX. of 1858, for the payment of the debts of the late Nawab Gholam Mahomed Ghouse Khan Bahadoor ; 415 claims were filed for a sum of Rs. 1,05,52,041. The payment of stipends amounted to Rs. 6,76,218.

MILITARY.—The following troops were sent from Madras as part of the China Expedition :—

No. 4 Battery, 13th Brigade Royal Artillery.
A Company, 5th or Golundauze Battalion Artillery.
1st Supplemental Company, Artillery.
Detachment Native Artillery, drivers in charge of ponies for Mountain Train.
A and K Companies, Sappers and Miners.
Two Squadrons, 1st King's Dragoon Guards.
Her Majesty's 44th Regiment of Foot.
21st Regiment Madras Native Infantry.

The strength of the Native Infantry on 1st January 1860 was 34,288 and on 1st May 29,402, shewing a reduction of 4,886 men. A farther reduction of 2,107 was to be effected so as to make each corps 700 strong. The Brigade commands at Vellore, Trichinopoly, Bellary, Rangoon, Bangalore and the Neilgherries, were abolished. An experimental party of one officer with 20 Europeans and a medical officer, was directed to reside in Harris Valley, a sanitarium on the Galee Purvuthum Hill, 55 miles from Vizagapatam. The barracks at Jackatalla were appropriated as a convalescent depôt for all branches of the European Military Service. A Committee of officers was sent to examine the capabilities of Mutthoor Hill, North of Kamptee, as a sanitarium. The sanitarium at Ramandroog, 38 miles from Bellary, was eminently successful.

ECCLESIASTICAL.—There were, with the Bishop's Chaplain, 40 appointments. Of the 40 chaplains only 33 were available for duty. Nine additional chaplains were required. The services of the clergy from the Voluntary Societies at the out-stations were of the greatest benefit. The Bishop in the course of his tour baptised 3,500 native Christians, and ordained 21 native candidates.

MEDICAL.—The Presidency was tolerably free from visitations of epidemic diseases, with the exception of Malabar, Canara, Nagpore and Hyderabad, where the cholera prevailed.

Civil Dispensaries.—There were 38 in which 44,136 patients more than in 1858-59 were treated. Of 13,128 in-patients, 858 died—a percentage of 6·4. Of 281,181 out-patients, 417 died—a percentage of 0·1.

Vaccination.—343,621 were vaccinated. Of these 312,880 were successful and 30,741 failures. This shews a decrease on the previous year of 11,943. The department was in an unsatisfactory state owing to want of effective supervision.

Health in Jails.—Of 7,167, the average annual strength, 333 were on an average sick daily, 9,364 were treated and 557 or 5·9 per cent. died.

Health of the Army.—The returns are not quite correct but the death rate was below the average of former years. Among 13,892 Europeans 26,272 or a percentage of 189·1 were treated; 386, or a percentage of 2·7 to strength and 1·4 to treated, died. Among 41,755 natives, 50,827 or 121·7 per cent. were treated, and 716 or 1·4 per cent. of those treated died.

Cooly Emigration.—The numbers who embarked and returned were:—

	Men.	Women.	Boys.	Girls.	Infants.	Deaths.
Mr. Burton's ... To the Mauritius ...	6,807	2,781	1,005	786	534	...
Mr. Burton's ... To Demerara ...	539	247	59	59	15	...
Mr. Warner's ... To Trinidad ...	655	346	101	84	39	...
The numbers that have returned from the Colonies are:—						
From the Mauritius	860	194	60	58	16	...
Ditto Demerara	162	95	23	24	26	83

The savings brought by the men from Demerara after a residence of from 10 to 15 years, were 35,982 dollars of Rs. 2-3 each. One man had saved as much as 1,850 dollars, and some few 1,000 and upwards. Only twenty-four of the whole number were without funds, or at least made no deposit prior to embarking.

Conservancy of Forests.—The Annamallay and North Canara Forests were systematically worked. The system was extended to the Pulni Hills and Cuddapah and Kurnool. Teak

nurseries were commenced along the Sedashevaghur River. The enormous demand for Railway sleepers taxed the Department to the utmost.

The Botanic Gardens at Madras, Bangalore, and Ootacamund continued to improve under the able superintendence of Messrs. Brown, New and McIvor.

Presidency Town Municipality.—The income of the year was Rs. 4,52,856-10-9, including the balance of the previous year of Rs. 2,68,942. The expenditure was Rs. 1,95,680. A Scheme was laid before the Commissioners by Colonel A. Cotton for cleansing the southern portions of the main drain with water raised from Cochrane's Canal, which it was supposed would greatly abate the nuisance of the stench so loudly complained of by the inhabitants of Fort Saint George during the north-east monsoon, and by those of Black Town during the rest of the year, arising from the discharge of the sewerage into the sea near the north-east angle of the fort. The scheme included the making a navigable channel from the canal to a tank situated just within the town wall, a little to the north of Elephant Gate, and the deepening of the tank so as to make it fit for a boat station or basin, similiar to that known as Cochrane's Basin. On the eastern border of this basin it was proposed to erect a cistern 260 × 166 × 10, to contain 250,000 cubic feet of water, to be lifted by a twelve horse power steam engine, working ten hours a day, and conveyed by iron pipes to the highest point on the western ridge of Black Town, or Saulay Street, from whence it might be distributed through the primary drains of that portion of the town, or led by the large secondary drain in Annah Pillah Street into the southern end of the main drain. The cost of the whole was estimated at Rs. 61,991-13-2 to be met not out of the current income of the Municipal Fund but by the realization of a portion of the sum invested in Government securities, and set apart expressly for such purposes.

Mortuary Registration.—The number of deaths reported in 1859 was as follows :—

	Males.	*Females.*	*Children.*	*Total.*	
	3,299	3,183	3,784	10,266	
Against	3,492	3,360	3,620	10,472	in 1858.

The number of deaths from cholera was only 1,061 against 2,047 in the preceding year.

Observatory.—Major Tennant assumed charge in succession to Major Jacob. The new piers for the transit circle were approaching completion, and the other works for the meridian instrument were in progress. A new dome was sanctioned for the equatorial instrument.

Museum.—The average monthly expenditure, on account of the museum, was Rupees 197-13-0, and that on account of the zoological department Rupees 310-13-1. The total number of visitors to the museum, during the past year, is stated to have been 552,407, of whom 81,228 signed their names in the visitors' book. The donations to the museum, during the year, were 492 in number, and 23 specimens were presented to the zoological collection.

THE

ANNALS

OF

INDIAN ADMINISTRATION.

TEAK FORESTS IN PEGU.

Indian Records, No. XXVIII.

A REPORT on the Teak Forests in Pegu published in 1860, is submitted to Government by Dr. Brandis, Superintendent. It is dated December 1856, and refers to the operations of that year, besides reviewing the whole question of Forest conservancy in the Province of Pegu.

The inquiries entered into are the following:—

1. How can the produce of the forests be turned to account in the most advantageous manner?
2. What measures must be taken for the preservation of the forests?
3. What can be done for the extension and consolidation of the forests?

I.—THE WORKING OF THE FORESTS.

In the process of numbering the Teak trees they were divided into four classes.

1st class, 6 feet or 4 cubits in girth and upwards.

2nd class, 4 feet 6 inches or 3 cubits in girth and upwards.

3rd class, 3 feet or 2 cubits in girth and upwards.

4th class, under 3 feet, and seedlings.

It is remarkable, that the proportions between the trees of the 1st and 2nd class are very different in the different forest districts. This can only be accounted for by the great irregularity which, under the Burmese rule, prevailed in the felling of trees and the working of the forests. For while in some districts the

work of devastation was principally directed against the undersized timber for house-posts etc., in others large trees were felled to be cut up either into short Loozars or to be converted into square logs and large planks. The ultimate result, however, is that, taking the forests as a whole, the number of trees belonging to the first three classes is about equal, viz. :—

I. Class,.....2423 trees
II. Class,.....2503 trees
III. Class,.....2793 trees

This probably well enough expresses the proportion prevailing throughout the whole country.

Of the very considerable amount of seasoned timber, about one-third is Nathat, that is, has died from natural causes. The rest is old timber, a considerable portion of which was killed under the Burmese rule, the remainder during the first years of the British occupation. The amount of the seasoned timber in the forests is of course very variable, it being higher in those forests which have been worked extensively, but the proportion of Nathat timber is probably the same all over the country. All Nathat trees should be removed, but besides these no tree below 6 feet in girth ought to be felled. The number of trees much beyond this size is very limited. Only about 10·3 per cent. of the 2,423 1st class trees are above 7 feet 6 inches. The cause of this is that Teak grows very slowly after it has advanced beyond a certain number of years, and in Pegu the tree does not appear in general to attain to a great age. It is evident that the growth of Teak is not uniform, the yearly increase for the first six years being : 10 and 2-11th lines in diameter, that for the next sixteen years 5 and 8-11th lines in diameter, and the increase for the last forty-eight years only 3 lines in diameter. By interpolation and diminishing proportionately the yearly increase in the years after the age of 70, a more complete scale of the growth of Teak has been obtained. The report here says :—"A tree of 36 inches or 3 feet in girth, requires 21 years to attain a girth of 53 and 13-16th inches or of nearly 4 feet 6 inches, and a tree of 4 feet 6 inches in girth, requires 23 years to attain a girth of 72 and 2-16th inches or little above 6 feet. If therefore, in the course of 23 years, all trees now (1856) measuring 6 feet and above are removed, those of the second class will have replaced them, and those of the third, together with a portion of the fourth will have come into the place of the second. It being more convenient to adopt a term of 24 years than one of 23, it is proposed to work the forests in such a manner that, after the lapse of 24 years, all trees, measuring at the beginning of this period more than 6 feet in girth, shall have been felled and removed." The number of seedlings in the forests is esti-

mated at two to every full grown tree. This ensures a plentiful supply of trees of the first class. The practice of felling under-sized trees is very injurious to the forests. Of the 10,880 logs brought down by the different contractors in 1856, no less than 7458 were under-sized. The practice has been stopped.

System proposed for the working of the Forests.—It is necessary to remove every year one twenty-fourth—no more—of those trees that at the beginning of the working term belong to the 1st class, or measure 6 feet and upwards in circumference. In order to do this Dr. Brandis proposed to divide the forest land into six divisions, according to the geographical features of the country. Only one of these would be worked at a time. The first thing would be to mark all trees of 6 feet in girth and upwards in such a way that the marks should remain visible for 24 years. Then one-fourth of them were to be girdled by a circular cut through the bark about one inch into the wood. This operation causes the death of the tree and allows of the seasoning of the wood. The trees were to be allowed to stand three years before felling, except in the first division where only two years would be allowed in order to facilitate the introduction of the new scheme. The marking and girdling was to take place in 1857 in the first division, and in 1861 in the sixth. The felling would commence in 1859 in the first division and in 1864 in the last. After the completion of the first quarter of the first term of 24 years the second girdling would commence in 1862, and the second felling in 1865. After the operations of the second quarter one-half of the trees marked in the beginning would have been removed; after the third three-fourths; and after the fourth, or at the end of 24 years, none of the trees measuring 6 feet and upwards in 1856 when the report was written would be left standing. The results of the second marking, which would form the beginning of the second term, would then show whether in the different districts an increase or a decrease of 1st class trees had taken place, or in other words whether the period of 24 years allowed for the renewal of the forests had been sufficient or not.

Such is the proposed scheme. It is widely different from those generally adopted in Europe, but the circumstances of Pegu forests are so different that the administration must be different also. The European forests consist usually of one kind of tree or of a few kinds of nearly the same value as timber. In Pegu on the other hand the trees are of various kinds, and Teak trees form but a small proportion. The conservancy of the Teak forests is yet in its infancy. One of the objects to

be kept in view is the consolidation of the forests by transplanting and other means.

Probable out-turn of Teak.—The number of trees belonging to the 1st class, stated at 2423, were observed on an area of about 30 square miles. The proportion to the square mile is about 80. There are of course some localities where scarcely a single teak tree is to be found, while in others it is very plentiful. There are occasional instances of pure teak forests. One of the finest of these is the forest at Emmah in Prome 20 miles from the Irrawaddie, which is only a square mile in extent and contains 1300 1st class trees. Even if the whole quantity of teak in a district were known and available for felling it could not all be brought down to the main river, because the streams by which alone it could be conveyed are in many cases obstructed by rocks or accumulations of living or dry vegetation. Taking into account all the hindrances and difficulties that have to be overcome, it is evident that for a long series of years it will not be possible to bring to market the whole amount of 1st class trees that might be felled every year, which will vary from 18,700 to 39,000 logs a year. For the first few years at least 13,000 logs may be taken as the probable quantity brought down from the forests.

Nathat Timber.—Before bringing down any timber under the new system it was necessary to remove all the seasoned and Nathat timber lying in the forests at the time the system was proposed. The quantity available before 1859 was 12,313 logs from the Southern forests alone. Besides which there were 156,000 in the other districts, making a total of 168,313. Of these it was estimated that one-third would be destroyed by jungle fires, and another third would remain in the forests on account of the difficulty of carrying them away, leaving 56,000 available, of which 13,000 would be brought down by the contractors in 1856, leaving 43,000 for 1857 and 1858, or 21,500 for each year. This being the case it was not desirable to delay the commencement of the new system of cutting beyond 1859. In Moulmein the forests are worked by elephants. In 1856 only two of the Pegu forests were worked by this agency. The catching of elephants not being permitted in this province, its forests were placed at a disadvantage as compared with those on the Martaban side where elephants may be caught, and a supply is always at hand.

Forest Revenue.—The Report says :—" there appear to be three different modes of obtaining revenue from the forests, and these three modes have been employed more or less in the ad-

ministration of the forests of this country and of the Tenasserim provinces.

I. The levying of a duty, either uniform or *ad valorem*, on every log brought from the forests, the felling of the trees being either free, or restricted to the holders of a permit or grant. This mode has laid the foundation of the important timber trade of Moulmein, but has, at the same time, served to destroy the Attaran forests in less than 25 years.

II. By selling the whole of the seasoned timber existing in a certain forest district to the highest bidder, the price on each log, or each separate class of logs, being stipulated at the sale. This price to be paid for the timber when it is brought down from the forests.

III. By bringing down the timber from the forests on account of the Forest Department, and disposing of the same by periodical sales to the highest bidder.

The operations of the year 1856 have been conducted according to the last principle, it having been recommended by the Supreme Government in preference to any other. The results serve to show—

1st. That the third principle is practicable in this country and

2nd. That it is likely to give a higher revenue than either of the two others, though not in the same measure as might at first sight be expected." The evils to be guarded against in this system are breaches of contract, fraud, robbery and natural accidents. Dishonest transactions can best be prevented by the prohibition of private timber growing. This was to be done on the 1st of January 1858, and after date only such private timber would form an article of inland trade in Pegu, as has passed the foreign Custom Houses at Thyet Mew or Toungoo, or as had been sold to private parties by the Forest department. Altogether the new system would lessen the chances of fraud.

Prices of logs.—The highest amount is usually obtained for pieces from 50 to 60 feet long. The following table shows the prices realised for the various kinds of logs, at the sale of October 1856, and the profit.

Stations.	Description.	Amount. Realized. Per Log.	Amount of Profit. Per Log.	Loss.	Average cubical contents in cubic feet in each log.	Amount realized per Ton of 50 cubic feet.
Rangoon.	Yatthits, ...	7 8 3	4 6 1	...	25	15 0 5
	Doodoes, ...	13 7 5	10 10 6	...	17	39 9 5
	Loozars, ...	17 8 0	13 9 3	...	43	20 5 7
	Doogies, ...	26 5 4	17 13 1	...	25½	51 10 1
	Stem pieces, ...	32 8 0	29 0 10	...	63	22 12 8
	Keel ditto, ...	128 12 0	117 12 10	...	79½	81 3 8
	Yatthits, ...	...	...	...	...	...
	Doodoes, ...					
	Loozars, ...					
	Doogies, ...					
	Total, ...	...	...	...	...	...
Toungoo.	Yatthits, inferior quality, ...	1 0 0	0 5 9	..	...	...
	Yatthits, ...	4 0 0	2 1 9	...	...	...
	Loozars, inferior quality,					
	Loozars, inferior quality, ...	10 0 0	6 3 5	...	...	...
	Loozars, ...	15 0 0	8 15 7	...	...	...
	Doogies, inferior quality,					
	Doogies, ...	30 0 0	14 1 3	...	...	...
	Yard pieces, ...	40 0 0	27 2 7	...	...	...
	Mast ditto, ...					
	Doogies, ...					
	Total, ...	...	...	...	...	...

The number of logs sold was 3,610, and the amount realized was Rs. 39,114. The expenses in Rangoon were 35 per cent. of the amount realized, and in Toungoo 46 per cent.

Teak from other Sources.—The Report says:—"the import of foreign timber, generally of excellent quality, both by the Irrawaddie and by the Sittang, is yearly increasing. But instead of discouraging this import of foreign timber and the depression of prices that will soon be caused by the same, it appears to be the duty of Government to take such measures as may be in its power to improve also the state of the foreign forests and to prevent their wasteful working. The measure of substituting

a uniform rate of duty on every log of foreign timber instead of the former *ad valorem* duty, might serve to discourage the felling and exportation of young trees.

Besides this it is likely that the price of Teak in general will rather decrease than increase, on account of the supplies that may soon be expected from other quarters. The Teak-producing parts of Java have, since the commencement of this century, been covered with extensive Teak plantations, the produce of which must in time exercise some influence on the market. Further the hills and valleys in the interior of this peninsula are said everywhere to be covered with Teak forests. The timber from the western portion of the same has of late years been the principal source of the Moulmein timber trade. That from the eastern portion must sooner or later find its way down to Bangkok, and will not fail to have its influence on the prices.

A fall in the price of Teak would seriously diminish the advantage to be derived from under-sized timber, or even render the bringing down of the same a cause of loss instead of gain, but it would always leave a considerable advantage in favour of the full-sized logs. As long therefore as the latter constitute only a small portion of the supply available, a fall in the prices might render the present system even a losing concern."

Disposal of the Timber.—Private purchasers of timber for sale and for exportation, or for their own use, are either found in Rangoon and other stations on one of the principal rivers, or in the forest districts themselves. The number of the latter is very limited, and should a demand arise among them, they must be provided for by special arrangements, the conditions being that they have to remove the timber from the forests themselves, and that they pay the average market value of the same, after deducting the expenses that would have been incurred in bringing the timber down to Rangoon, or about 40 per cent.

The public departments throughout the country require to be considered separately. Those in the districts above Rangoon cannot, as a rule, supply themselves at the Prome or Toungoo auctions, at which in general only a limited number of logs, sufficient for the local consumption, can well be put up for sale. They must therefore be supplied by special arrangements, and the prices to be paid be fixed according to the rates realized in Rangoon after deducting that share which the purchasers may have taken in removing the timber from the forests.

Public departments in Rangoon, however, as a rule, should not be supplied in this manner, but should, like private parties be obliged to go into the market. This will undoubtedly be

inconvenient for many public officers, who would prefer to select for Government use the best of the Government timber, but such a measure would endanger if not destroy all hopes of bringing Rangoon to what it ought to be, an important market for Teak timber.

II.—The Preservation of the Forests.

Teak is exposed to injuries from injudicious and irregular felling, from the jungle fires, from the practice of Toungya or hill cultivation, and from different natural causes, as creepers and parasites and the shade of other trees.

Felling.—Unlawful felling can never be expected to cease entirely and the introduction of the new system would tend to lessen the depredations of this kind.

Jungle Fires.—Jungle fires are frequent in the dry season. When the trees are nearly leafless and the ground is covered with dry leaves and parched-up grass, very little is required to cause a fire. The unextinguished embers of a camp fire, a burning cheroot, or even the friction of two dry bamboos, occasioned by the wind, are the causes of such fires that generally spread over large districts. Although they convert the dry covering of the soil to coal and ashes, they pass without doing much harm to sound trees of two to three feet in girth and upwards. Trees, however, that are not perfectly sound, for instance, that have some dry branches on them, or where the bark near the ground has fissures, which is not unfrequently the case with Teak, suffer serious damage from these jungle fires, and not seldom become hollow or otherwise injured. Greater still is the damage done to seasoned or Nathat trees and logs by these fires. For these are either destroyed or so much injured that they lose considerably in value, and not seldom does the traveller meet in the forests of Burmah with logs half consumed, or with burning trees, or with large heaps of ashes white as snow, the remains of valuable timber not removed in time. The jungle fires are further injurious to seedlings and small trees; although not in so high a degree as might be supposed. The blackened sticks that are left as the only remains of young Teak appear lifeless, still many revive, and even those that have been burnt down to the ground, not seldom bring forth a new shoot in the ensuing rains. But even in these cases, the growth of young Teak is retarded for one or more years and rendered more difficult, as the quicker growing jungle gains time to oppress the young tree.

Lastly, the jungle fires, in a great measure, retard the in-

crease and renovation of the Teak forests, by destroying an immense quantity of Teak seeds that cover the ground and might otherwise have germinated. The fires have a good effect however in clearing the forest of underwood and facilitating the growth of the Teak seedlings that survive.

Hill Cultivation.—In the system of Toungya or hill cultivation a tract of forest land is cleared for the sake of a single crop, and the trees thus destroyed cannot be replaced by nature in less than 80 or 100 years. An attempt has been made to take advantage of this practice in the Prome district by encouraging the hill cultivators to sow Teak in regular rows with their rice and cotton. In that district the burning of the trees and shrubs does not create a a mass of low dense jungle as in other parts of the country, and the ground is fertilised by the ashes. To check the injury caused by this species of cultivation, the forest rules enjoined that no Toungya cultivation should be commenced in a place where there were more than 50 Teak trees of all sizes; and where Nathat or seasoned timber was found, the cultivators were required by the rules to remove them beyond the reach of the fire.

Injuries from other Plants, &c.—The creepers of Pegu are sometimes 100 feet in length and as thick as a man's thigh. They wind round a tree and smother it with their rich foliage. When these creepers are cut through the stem further injury to the tree is prevented, but an additional danger arises, —their dry remains afford fuel for the frequent jungle fires and cause the death of a tree which might otherwise have been preserved. This is guarded against by cutting the stem high up, beyond the reach of the fires. Teak trees are frequently attacked by parasites. The only remedy is to kill, fell and remove all trees so attacked. The injury done to the young Teak trees by the shade of other trees is not inconsiderable. To cut down all these trees would be an enormous expense, as they would require to be removed from Teak localities, to prevent their affording fuel to the jungle fires. The most desirable plan thought of was to obtain a price for the timber sufficient to cover the expense of its removal. None but trees for the timber of which a demand existed were to be removed. Of these the best were Yndike, *Dalbergia species;* Pynkadoe, *Inga Xylocarpa;* Padouk, *Pterocarpus species;* Shabin, *Acacia Catechu;* Oukchinya, *Diospyros species;* Eingy-yen, *Shona Robusta;* and Pyminah, *Lagerstræmia species.*

III.—The Improvement, Extension and Consolidation of the Forests.

That planted Teak forests will succeed, if managed with proper care, ample experience in Malabar, Bombay and especially in Java has proved. But it remains to be discussed, whether the timber raised in plantations will not be so much inferior to that grown naturally, that the propriety of expending large sums in the establishment of plantations may be doubted.

The general opinion in India appears to be *against* planted Teak, but this opinion is founded rather on general and theoretical ideas than on sufficient experience. It may be correct that Teak grown in Bengal is less strong and valuable than that brought down from the hills of the Malabar coast, or from the mountains of the Shan and Karen country. But in the latter countries Teak is indigenous, whereas in Bengal it is only introduced, and grows under climatic and other influences totally different from those that surround it in its native soil. To ensure a plantation being successful it is necessary to select suitable soil, either near good Teak localities or where Teak of good quality has formerly stood. The place must be easy of access for Europeans at all seasons, and it must be near one of the larger streams of the country. Such localities are to be found near the banks of the Irrawaddie. The subject comprises two divisions, operations in the nurseries and operations in the forest. The nursery should be situated in the midst of or near to the forest. It should be enclosed with a ditch, kept clear from weeds and grass, to serve as a protection from fire and cattle. The beds should be long and narrow with footpaths between them, and should be composed of alternating layers of burnt turf, ashes, leaves and ground. About the commencement of the rains the seeds should be sown in rows about one foot distant from each other, very close together as there is always a large number that does not germinate. The seeds must be fresh but require no special preparation. One or, if necessary, two years after the seed has been sown, always after the rains have set fully in, the seedlings should be taken up without injuring their roots, and carried in baskets covered with leaves to the ground where the forest is to be established.

Planting.—The young plants are to be planted out in straight rows, the rows at a distance of nine to fifteen feet from each other, but the plants in the rows only at the distance of two to three feet from each other. For the first five years the ground on both sides of each row of young plants must be cleared of grass and shrubs once a year in December, so as to

prevent the jungle fires from injuring the young plants. It is to be hoped that after that time the young forest, in which the trees will then have attained the age of 6 years, will require no further care and expense, but that they will commence yielding a revenue through the thinning of their ranks, and the cutting out of entire rows, after the trees have attained such a size as will render this operation necessary. The advantages of planting in rows, instead of on the quincunx or the square system, are that the young plants of one row are enabled in a short time entirely to cover the ground between each other with their foliage, and thus to keep down the growth of weeds and underwood. The keeping of the rows far apart affords space to the young trees to extend their foliage on two sides, and allows the trees of a naturally strong constitution to manifest themselves. It also renders the process of thinning the rows easier.

The expenses of a system of plantation like this will be very great. It may be estimated that 1,000 trees that have reached the age of six years will probably have entailed an expense ten times as high in Burmah as would have been incurred in Europe. Another, more simple, less expensive but also less effective, mode of extending the Teak forests, is by scattering Teak seed on ground near Teak localities.

Consolidation of the Teak Forests.—The great drawback of the Pegu forests is that Teak trees are only found here and there scattered in a forest of other trees. This causes the cost of bringing down the timber to be 40 per cent. of the amount realized. The fact that the 500,000 full-sized Teak trees of the Pegu forests are scattered over an area of more than 7,000 square miles, will render it necessary to employ for the protection and management of these forests several hundred Goungways and other subordinates, whose salaries will consume another 17 per cent. of the amount to be realized by the sales. In short, this fact is the great impediment to an advantageous forest administration in Pegu. Preparations therefore must be made, gradually, to introduce changes in this respect, and to bring the forests into a more consolidated state. It is true that we shall not live to see or reap the fruits of such measures, nor is it likely that the next generation will do so, but this is the fate of almost every measure in forest administration, and it would not be wise to desist from all attempts at improvement, because their result cannot secure immediate advantages. The general measures to be taken for the consolidation of the forests are of two kinds—

1. Gradually to change into pure Teak forests those localities where Teak forms a considerable portion of the forest.

This will be effected by removing a portion of other trees and all underwood and thereby giving the Teak greater facilities for multiplying itself.

2. To fill up with young Teak trees the space between different patches of Teak forest. This can be done either by scattering seed, or by establishing regular nurseries and plantations.

Conclusion—The report concludes thus:—"Whatever modifications and improvements in the particulars of the operations it may be found advisable in the course of time to adopt, the general plan for the consolidation and the improvement of the forests must, if once put into practice, be strictly adhered to until a long experience shall have proved that is was based on erroneous suppositions. Even in agriculture a frequent change of system is injurious, although there the cultivator has mostly to deal with plans whose life does not extend beyond one or two years. How much more injurious is it in the cultivation of forests consisting of trees that do not reach their maturity in a period much short of a century. It is a complaint frequently heard from foresters in Europe that the forests in this or that district are going to ruin, because the system of administration had not been carried out as it had been commenced. It is a true saying therefore that, in forestry, the laying out of plans and the commencement of operations is easy, but that a steady adherence to the plan laid down is a very difficult task."

The appendix contains the Rules for preserving the Forests in Pegu issued by the local Government in October 1856. The principal rules were:—

III.—No person is permitted to girdle or to fell any Teak tree, large or small, except by the express orders of the Superintendent, or his assistants.

V.—Other trees beside Teak which may have been girdled by order of the Superintendent, are likewise neither to be felled nor removed, except by orders from the same officer.

VIII.—No person is permitted to set fire to any Teak timber standing or felled.

XIV.—Whenever the Superintendent of Forests, or his assistants, may find it necessary to mark trees of any kind with the Government mark, such trees are neither to be cut nor injured in any way.

XVII.—Private parties, in the districts near the forests, and at a distance from the principal rivers, who may be desirous of purchasing Teak timber for their own use in the district, may obtain the same by applying to the Superintendent. If the application can be granted, orders will be given to the forest

Goungways to point out the trees or logs available for the purpose. The purchasers will have to fell and to remove the timber within a fixed time. The price to be paid for the same will be settled by the Superintendent, and one-fourth of it is to be paid before any timber is felled. If the timber be not removed within the time specified it will be liable to be confiscated and the amount paid in advance to be forfeited.

XVIII.—Permission to bring away branches of felled trees or other small pieces of timber such as slabs cut off from squared logs, or the stumps remaining after the tree has been felled, will be given to parties applying for the same on their depositing a certain sum as a security, and on payment of a fixed price for one year's grant in one forest district. The grant, however, as well as the deposit, will be forfeited in case the parties bring away or destroy any timber besides that stipulated for.

XIX.—Parties residing in the districts near the forests, and at a distance from the principal rivers, who may be desirous of obtaining Teak timber for the erection of buildings for religious purposes or the common benefit of the public, as Christian churches or chapels, schools, kyoungs, zayats, bridges, &c., may apply for the same through the local authorities to the deputy or assistant commissioners of the province, &c.

Table 9 in the appendix shows the amount of revenue realised from the forest department previous to 1856, and the amount expected to be realised from the new system proposed.

The following statement shows the results:—

Year.	Logs.	Proceeds.	Clear revenue.
1854-55	20,724	Rs. 28,113	Rs. 2,512
1855-56	22,895	80,593	42,998
1856-57	16,499	86,979	26,979
1857-58	21,000	1,26,000	41,000
1858-59	21,000	1,26,000	41,000
1859-60	15,000	1,35,000	50,000
1869-70	25,000	2,25,000	1,60,000

The following table shows the intended working of the system dividing the forests into six divisions, and the amount of timber expected from each:—

	Names of Forest Divisions.	Length from North to South.	Breadth from East to West.	Area in square Miles.	Probable number of 1st class trees in each division.	Probable number of trees which might be brought down from the different forest divisions. if all trees were accessible and all water-courses free from obstructions.					
						Girdled in 1857 Felled in 1859	1857 1860	1858 1861	1859 1862	1860 1863	1861 1864
		Miles.	Miles.								
Irrawaddie Forests.	Eastern Division. I. Tharawaddie Forests,	70	20	... 1,400	1,12,000	28,000	...	...	...	...	..
	Eastern Division. II. Prome Forests, east of the Irrawaddie, ...	50	20	... 1,000	80,000	...	20,000	...	...	...	...
	Western Division. III. Forests west of the Irrawaddie, ...	84	12	... 1,008	80,640	...	...	20,160	...	...	...
	IV. Southern Forests, ...	36	28	... 1,008	80,640	...	...	...	20,160	...	...
Sittang Forests.	Southern Division. V. Southern Sittang Forests.										
	a. East of the Sittang except Bhonee Forests,	34	12	408							
	b. Bhonee Forests,	16	16	256	1,960	...	...	...	...	39,200	...
	c. West of the Sittang, ...	54	24	1,296							
	Northern Division. VI. Northern Sittang Forests.										
	a. East of the Sittang, ...	26	12	312	936	...	...	...	...	...	18,720
	b. West of the Sittang, ...	26	24	624							
				7,312	5,84,960	28,000	20,000	20,160	20,160	39,200	18,720

REPORT ON INDIAN ADMINISTRATION—MILITARY.

1859-60.

The Native Army.—Owing to the defection of the old Native Army of Bengal in 1857 the following Regiments ceased to exist.

4th and 5th Troops 1st Brigade Horse Artillery.
4th Troop 2nd Brigade Horse Artillery.
4th Troop 3rd ditto ditto ditto.
7th, 8th, and 9th Battalions Foot Artillery.
10 Regiments of Light Cavalry.
1st Regiment Native Infantry.
2nd ditto ditto (Grenadiers.)
3rd ditto ditto.
5th ditto ditto.
6th ditto ditto.
7th ditto ditto.
8th ditto ditto.
9th ditto ditto.
10th ditto ditto.
11th ditto ditto.
12th ditto ditto.
13th ditto ditto.
14th ditto ditto.
15th ditto ditto.
16th ditto ditto. (Grenadiers.)
17th ditto ditto.
18th ditto ditto.
19th ditto ditto.
20th ditto ditto.
22nd ditto ditto.
23rd ditto ditto.
24th ditto ditto.
25th ditto ditto.
26th Regiment Native Light Infantry.
27th Regiment Native Infantry.
28th ditto ditto.
29th ditto ditto.
30th ditto ditto.
34th ditto ditto.
35th Regiment Native Light Infantry.
36th Regiment Native Infantry.
37th ditto ditto.
38th ditto ditto.
39th Regiment Native Infantry.
40th ditto ditto.
41st ditto ditto.
44th ditto ditto.
45th ditto ditto.
46th ditto ditto.
48th ditto ditto.
49th ditto ditto.
50th ditto ditto.
51st ditto ditto.
52nd ditto ditto.
53rd ditto ditto.
54th ditto ditto.
55th ditto ditto.
56th ditto ditto.
57th ditto ditto.
60th ditto ditto.
61st ditto ditto.
62nd ditto ditto.
64th ditto ditto.
67th ditto ditto.
68th ditto ditto.
69th ditto ditto.
71st ditto ditto.
72nd ditto ditto.
74th ditto ditto.
Ramghur Light Infantry Battalion.
Hurreanah Light Infantry Battlion.
5th Regiment Irregular Cavalry.
10th ditto ditto.
11th ditto ditto.
13th ditto ditto.
14th ditto ditto.
15th ditto ditto.
Oude Irregular Force, composed of—
3 Horse Field Batteries.
3 Regiments Irregular Cavalry, and
10 Regiments of Irregular Infantry.

This defection necessitated the levy of other organised bodies, consisting of Regiments of Punjabees and Northern Mahomedans, Hodson's Horse, composed chiefly of men from the Cis-Sutlej States, and Regiments of Sikh and Pathan

Cavalry, Military Infantry Levies and Irregular Horse. Many of these were formed while yet the old Regiments of the Bengal Army were, one after another, falling off and joining the mutineers. After the relief of Lucknow, and as we regained our footing in the North-Western Provinces, it became necessary to organize additional Troops. The several Infantry Levies raised by the Commander-in-Chief in 1858, were formed for this purpose; and in the Civil Department several Battalions of Military Police were organized in the North-Western Provinces, the Punjaub and Bengal. The Native Regular Cavalry was replaced by European Light Cavalry, and the native Artillery which remained faithful was broken up; the only Native Troops of this Arm remaining in Bengal, were the Punjaub Batteries and Mountain Trains, and a Local Company in Assam. All that remained of the native force was fifteen Regiments of the Regular Native Infantry, six of which were never disarmed; the Local Infantry, the majority of which remained faithful; the Goorkha and Irregular Line Regiments; and eight Regiments of Irregular Cavalry which continued armed, with the remains of the partially mutinied Irregular Cavalry Corps which were re-organized, and the Sappers and Miners. This force, the 12 Levies and the 18 new Punjaub Infantry Regiments, were placed on a reduced establishment, the two latter descriptions of Corps being formed each into 8 Companies with 600 Privates, and the former into 10 Companies each with 700 Privates. Further reduction was to be made.

Calcutta Volunteer Guards.—The European inhabitants of Calcutta had, in June 1857, formed themselves, under the auspices of the Government, to whom they had come forward to tender their services, into a body designated the Calcutta Volunteer Guards, composed of persons of every class, and consisting of Artillery, Cavalry, and Infantry. This Corps performed very arduous duties in Calcutta, with exemplary zeal and perseverance for two years; but the course of events in the year 1859 having rendered their continuance as a Corps no longer necessary, they were disembodied on the 1st of June 1859, the Government in a General Order of the 27th of the preceding month having placed on record an acknowledgment of the value of their services at a very critical period. Her Majesty's Government concurred subsequently in the testimony of the Government of India, to the merit of the Calcutta Volunteer Guards.

European Local Troops.—To replace the Native Cavalry, early in 1858 five regiments of European Light Cavalry were formed and officered from the late ten Native Corps. Three

new European Infantry Regiments were formed and officered from six of the mutinied native Corps, as the 4th, 5th and 6th Regiments of European Infantry. The recruits sent out for all these new regiments were inferior, and it was they who first shewed discontent on the question of Bounty and Discharge when the Company's forces were transferred to the service of Her Majesty under the Act of the 21st and 22nd Vic. Chapter 106, Section 56. The men considered that they had a right to their discharge and to be enlisted anew. On an explanation to the men by the Commander-in-Chief and the Chief of the Staff, and an intimation that the question would be referred for the orders of Her Majesty's Government, further agitation ceased for the time. In April 1859 it was made known to the European Troops that their claim had been carefully considered by Her Majesty's Government, in communication with the Law Officers of the Crown, who had finally decided that it was inadmissible. Early in the following month of May the men of the Bengal Artillery and 2nd European Light Cavalry, at Meerut, renewed the claim to discharge which had before been set up elsewhere. So strong had become the feeling among the European Troops of the Local Army generally throughout India, that their rights had been overlooked, and that their transfer without their consent to the service of the Crown could not legally be enforced; that Government, being satisfied that the objections of the men, though in reality erroneous, were founded on an honest conviction that their rights had not been respected, and desiring that there should not be even an appearance of injustice to any soldier, allowed every man who enlisted for the East India Company's Service to take his discharge, if he desired it, and a free passage to England. Under this permission 6,207 soldiers of the Bengal Army took their discharge, leaving 3,690 men who preferred continuing in the service. It was arranged that non-commissioned officers of 10 years' service should be allowed, if sick, one year's furlough to England.

Enquiries were made as to additional Sanataria for Europea troops.

Military Finance Commission.—To curtail military expenditure, and more particularly the excess caused by the operations consequent on the Mutiny, a Military Finance Commission was appointed in June 1859. They assembled in August at Bombay, proceeded to Madras and since February 1860 had sat in Calcutta. The Commissariat Department was in the process of reduction as far as compatible with efficiency.

China Expedition.—The occurrences in the Peiho rendering

it necessary to strengthen the British position in China, it was determined to despatch from India a considerable Force. Accordingly, two Regiments of British Infantry and a Company of Royal Engineers were at once despatched by the Government of India in the months of September and October, and at the same time the necessary preliminary measures, in anticipation of the despatch of a larger Force being required by Her Majesty's Government, were set on foot. In the beginning of 1860 the following Troops were embarked, partly to strengthen the British posts, but chiefly as an Expeditionary Force to co-operate with the French in the North of China. The British Force was placed under Command of Lieutenant-General Sir J. Hope Grant, K. C. B.

Artillery.			*Embarked at*
7 Battery,	14	Brigade R. Artillery,	Calcutta.
4 ———	13	———	Madras.
3 ———	13	———	Bombay.
8 ———	14	———	Calcutta.
2 Companies,		Golundaze,	Madras.
		Engineers.	
21st & 23rd Companies Royal Engrs.,			Calcutta.
A & K Companies, Madras Sappers,			Madras.
		Cavalry.	
2 Squadrons,		1st Dragoon Guards,	Madras.
1st Sikh Cavalry, Probyn's			Calcutta.
Fane's Horse,			Ditto.
		Infantry.	
3rd Buffs,			Calcutta.
31st Foot,			Bombay.
44th ,,			Madras.
2nd Battalion 60th Rifles,			Calcutta.
67th Foot,			Ditto.
87th ,,			Ditto.
99th ,,			Ditto.
		Native Troops.	
Loodianah Regiment,			Calcutta.
8th Punjaub Infantry,			Ditto.
11th ,,	,,		Kurrachee.
15th ,,	,,		Calcutta.
19th ,,	,,		Ditto.

At Calcutta 271 Officers, 9,729 Non-Commissioned Officers and Soldiers, and 1,035 Horses were shipped for China. The Government of India supplied the native troops only with clothing and stores. To transport the Force and Stores from Calcutta, 11 Vessels belonging to the State and 42 hired Vessels, total

53 Ships, were employed. Horses and Mules for the Batteries of Armstrong Guns sent out from England, and 1,000 baggage Horses were shipped at Bombay ;—120 Bullocks were sent from Calcutta.

General:—Experiments were made at the Gun Foundry with a view to improvements in Field Ordnance. The sheep farm in Pegu was broken up as a failure. An experimental museum for soldiers was established at Dum-Dum. The Normal School for Army Schoolmasters was placed under the educational department of the Punjaub. Steady progress was made in the general operations of the Great Trigonometrical Survey—including the Garhaghur Meridional Series in the Punjaub,—in the Coast and in the Bombay Series, and in the Hyderabad and Ganjam Topographical Surveys.

The Great Indus Series of Triangulation between Chuch Valley or Attock and the Kurrachee Base lines, was brought to a satisfactory termination, and the Topographical Survey of Rawul Pindee and Jhelum was completed. The operations in Cashmere and Thibet progressed beyond the Kurrakoram range and to the eastward of Leh in Ladakh. In consequence of the difficulty experienced in the Assam Longitudinal Series up the Valley of the Berhampootur River, with the present establishment, and the necessity of withholding any increase to the cost of the Survey at the present time, the triangulation was diverted from Gowhatty southward across the Cossiah Hills into Sylhet.

REPORT ON INDIAN ADMINISTRATION.—PUBLIC WORKS.

1859-60.

Work Done.—The prominent feature is the excessive predominance of expenditure on Military Works. Distinguishing between Original Works and Repairs, the general result may be thus exhibited:—

	Original Works.	Repairs.	
	Rs.	Rs.	Rs.
Military and Naval	1,06,82,379	16,25,373	
Other State Works	15,05,227	8,82,164	
Internal Improvement	39,80,279	67,94,266	
	1,61,67,885	93,01,803	2,54,69,688

Military Contingencies	...	...	86,918
Establishments and Contingencies, (Travelling Allowances, &c.)	...	...	66,65,069
Grand Total	...		3,22,21,675

"These are not proportions which it is satisfactory to contemplate, and they contrast painfully with the relative proportions before 1857."

Administrative Proceedings.—In 1854 the system of Annual Departmental Budgets was introduced. In 1859 modifications were proposed and they were about to take effect in April 1861. Their objects are:—

1st. The utmost practicable exercise of foresight, with a margin for unforeseen wants.

2nd. The separation, as completely as might be practicable, of the detailed examination of the merits of individual projects submitted for sanction, from the financial review of the selection of sanctioned projects intended to be the subject of the year's operations.

3rd. Increase to the powers of the Local Governments within the fixed limits of an annual assignment of funds.

Previous to 1855 the powers of the chief Local Governments, including Madras and Bombay, did not extend beyond sanction to a work estimated to cost Rs. 10,000. In that year the limit was extended on the motion of Lord Dalhousie to Rs. 25,000. This limit however was far more narrow than it was desirable to maintain, especially after the establishment of a system under which the limit of the total annual expenditure of the different Governments was absolutely fixed and unaffected by the sanctions which they might give during the year.

Departmental Management and Details.—Reforms were introduced into the Department in Bengal and the N. W. Provinces, which were to be gradually applied to the other governments. The inconvenience of the officer at the head of the Department holding official communication with the local Government only though its Secretariat, was remedied by placing him in immediate connexion with the Lieutenant Governor as Secretary in the Department of Public Works. The audit and control of the Public Works Accounts was to be removed from the hands of the Chief Engineer and placed under a separate officer, to be called the Auditor and Controller of Accounts. And there was an increase in Bengal in the number of Superintending Engineers. The number of circles was increased from three to seven.

The Department was declared a civil branch of the Administration and its officers in civil employ. To prevent collision with the military authorities it was thought desirable to call the attention, both of the officers of the Department and of the Local Governments under which they were employed, to the regulations affecting the relations between officers of the Department and commanding officers, and to the necessity for their strict observance. A committee was formed to report on the subject of the supply of stores from England, so as to avoid the confusion and consequent correspondence which existed. They made the following suggestions for the adoption of the Calcutta authorities :—

1st. Measures for simplifying the official routine connected with the receipt of stores from England, and recommendations of the method best adapted for each of the several Departments to follow in landing them.

2nd. The preparation by the Marine Department of a set of rules for the guidance of all concerned, whether Government Officers or persons connected with the ships which bring out the stores.

3rd. The construction of jetties with sheds and cranes to facilitate the landing of heavy stores for the Ordnance, Commissariat, Public Works, and other departments.

4th. The appointment of an agent for Government consignments to prevent the confusion and inconvenience, both to Government Departments and to the commercial public, which arose from the want of an office of reference and general control in details connected with the receipt of Government stores from England. Government considered all worthy of adoption and appointed an Agent for Government consignments.

The Home Government threw open to public competition a number of junior appointments in the Engineer and in the upper subordinate establishment in India. Of the successful competitors, one-half in each Class, with the designation of Probationers of the 1st and 2nd Classes respectively, were to be sent to Bengal, and the other half in equal proportions to Madras and Bombay. From date of embarkation, or from any other, as may be arranged in their covenants, and while studying in India, they will receive a salary of Rs. 170 and 85 respectively; and when pronounced by the Principal of the College sufficiently qualified, and after having acquired a colloquial knowledge of one of the native languages, they will be transferred to the effective establishment of the Public Works Department, with the grade to which their attainments may entitle them.

The number of warrants for the benefit of the military subordinates of the P. W. Department was increased 17th June 1856 as follows:—

Deputy Commissaries	3
Assistant ,, ...	3
Deputy Assistants	3
Conductors	15
Sub-Conductors	20
	44

The limit of qualification then established was modified in the 1859-60 by reducing the period of service from enlistment from 18 to 15 years and that of service as Serjeant from 8 to 5 years.

Several time-expired men of the Royal Regiments were engaged as Probationary Assistant Overseers. The P. W. Department at Rajpootana was transferred to the Government of Bombay. The balance against the Roorkee Workshops was Rs. 93,097, the net balance Rs. 3,263, from November 1852 to March 1859. The whole amount of work executed is valued at about 13½ lakhs, of which 11 lakhs are the value of work sent out, and 2½ lakhs that of machinery used in the workshops. But the demand has always been greater than the Superintendent has been able to meet.

N. W. P. Canal Returns for 1858-59.—Compared with the operations of the two previous years, the financial results were

Year.	Income.	Expenditure.	Difference.
	GANGES CANAL.		
	Rs.	Rs.	Rs.
1856-57 ...	82,751*	3,49,143*	—2,66,292
1857-58 ...	88,790*	2,53,150*	—1,64,360
1858-59 ...	1,63,554	4,59,539	—2,95,985
	WESTERN JUMNA CANAL.		
1856-57 ...	2,63,236	1,55,813	+ 1,07,423
1857-58 ...	2,34,183	89,811	+ 1,44,372
1858-59 ...	3,29,452	1,56,514	+ 1,72,938
	EASTERN JUMNA CANAL.		
1856-57 ...	89,602	1,30,739	— 41,137
1857-58 ...	66,218	72,679	— 6,461
1858-59 ...	1,81,022	84,714	+ 66,308

* Corrected for remission of Revenue since Report of 1857-58, and by the addition of a share of the directing establishment to expenditure.

Rohilcund Canals.				
1856-57	...	22,430	28,626	— 6,196
1857-58	...	None	5,454	— 5,454
1858-59	...	16,144	13,746	+ 2,398
Doon Canals.				
1856-57	...	10,418	14,694	— 4,276
1857-58	...	10,715	15,031	— 4,316
1858-59	...	11,668	16,317	— 4,649
Nujjuffghur Works.				
1856-57	...	.....	.....	.....
1857-58	...	14,437	2,786	+ 11,651
1858-59	...	15,690	3,092	+ 12,598
Agra Irrigation Works.				
1856-57	...	.....	.....	.....
1857-58	...	.....	.....	.....
1858-59	...	8,164	7,670	— 494

The large increase in the expense of the Ganges Canal was owing to the mutinies, which prevented the execution, at the proper time, of the repairs due in 1857-58. In that year the expenses were considerably diminished. The first admission of water into the Baree Doab Canal took place on 11th April 1859. The length finished was 52 miles. The completed Canal with its *rajbuhas* will, it is estimated, cost a crore and a half of rupees.

Dykes.—The Adjai River embankments, originally made in 1836, were abandoned as interfering with the beneficial drainage of the country and involving a large outlay on works not absolutely necessary and in some respects injurious. The operations at the head of the Mahanuddy Delta were most successful.

The rest of the Report is occupied with detailed accounts of Public Works and Railways, which are noticed in the Reports of the various Local Governments.

GEOLOGICAL SURVEY OF INDIA.

1859-60.

Bengal.—Mr. W. T. Blandford, ably carried out the examination of the important Coal fields of the Damuda and Adjai and the field maps were completed. Mr. J. G. Medlicott and Mr. Wilson were engaged on those portions of the Monghyr Dis-

trict which adjoin Bhagulpore and Beerbhoom, and made a preliminary examination of the Kurharbari Coal-field. They completed a large area, including the survey of the Kurruckpore Hills and terminating at the Ganges. Mr. W. Theobald, Junior, was engaged in carrying out the careful mapping of the boundaries and extent of the more recent and alluvial deposits, stretching from Burdwan by the banks of the Ganges, to the west of Monghyr.

North-Western Provinces.—A large District, lying between the Rivers Sutlej and Ganges, including the lower and outer ranges of the Himalaya and Sewalik Hills, was examined by Professor Henry B. Medlicott, of the Thomason College, Roorkee. The rocks were studied by him, more with regard to their physical relations than with reference to their rich stores of fossils : and several most interesting and important new facts were brought to light, bearing on their history and mode of formation, both as regards the Sewalik group, and also the Nummulitic series. Although this District is not complete in itself, the facts are of considerable importance in elucidating the structure of a district which is so well known to Geologists by the magnificent collections of fossils which have been procured from it, and made known by the labors of Falconer and Cautley.

Madras.—The Geological Survey of the country lying between Trichinopoly and Pondicherry, and thence to Salem, steadily progressed under Mr. H. F. Blanford. The examination of the important group of cretaceous rocks was completed. Messrs. King and Foote surveyed the adjoining districts and furnished an excellent report on the alluvial and post-cretaceous deposits of their Districts. The Survey party in Madras carefully examined and mapped almost the entire area included in sheet 79 of the *Indian Atlas* an extent of 17,824 square miles.

The progress of the Survey was impeded by the deputation of Mr. H. B. Medlicott in the early part of the working season, to enquire into the facts regarding the reported discovery of seams of coal near Murree, in the Punjab ; and more recently of Mr. T. Oldham, the Director, to investigate the state and prospects of the Government iron works in Kumaon. It was proved, as had been anticipated, that there was no regular deposit of coal in the neighbourhood of Murree.

Publications.—The third part of the first volume of the *Memoirs of the Geological Survey of India,* was issued during the first half of the year. This contained a report on the Geological structure of Bancoorah, Midnapore, and Orissa, Bengal; a note on the laterite of Orissa, by Mr. W. T. Blanford; and on some fossil fish teeth from the Nagpore country by

Mr. Oldham. With this part were also given title page, index, &c., for the first volume, which was thus completed. The second part of volume II., completing it also, passed through the press. This contains reports on the Nerbudda District, by Mr. J. S. Medlicott ; on the tertiary and recent deposits of the same area by Mr. W. Theobald, and a summary of the Palæontological evidence afforded by the several groups of rocks which are found there, or their representatives in Bengal and elsewhere, by Mr. Oldham. It is largely illustrated by maps, sections, sketches, &c., and will prove an important contribution to the Geology of India.

Arrangements were made to take up the examination of the country adjoining the river Soane and Rewah so as to unite the work in Bengal with that in Central India. In Madras the Districts of Cuddapah and Kurnool were about to be taken up.

Museum.—The systematic assay of all the specimens of iron stone and of coal which existed in the Museum, was steadily carried out in the intervals of other duties. The economic series was enriched by a good collection illustrative of the several processes of electro-metallurgy. The time of the Curator and of the Director was much employed in supplying information both to Government and to private parties in assays or analysis of minerals, ores, &c. The general collections steadily increased. The examination, naming, and arrangement of those already in the collections, progressed; the valuable series from the rocks of Trichinopoly and Pondicherry was added to; and the very important group of the Cephalopods, from these cretaceous beds, was nearly completed. A commencement was made in laying aside for the museums at Madras, Bombay, and more lately also for that at Kurrachee, series of fossils selected from the duplicates. There was an increase in the number of visitors of 38 per cent. on the previous year.

Library.—There were added 422 volumes or parts of volumes. The sum allowed is not sufficient for the rapid formation of a good library of reference.

In 1858-59 the loss by death amounted to nearly one-third of the establishment. In 1859-60 temporary illnesses only interfered with the work. Mr. Oldham, the Superintendent of the Geological Survey of India, who makes the Report, expresses his satisfaction with the services of his staff.

ADMINISTRATION OF TRAVANCORE.

(1034) 1858-59.

THE Report is drawn up by "the able and zealous minister" Madava Row, and forwarded to the Madras Government by Mr. F. N. Maltby, the Resident. The financial and other statements have reference to the official year of Travancore which closes on the 14th August.

Civil Justice.—The results of the year under review, as compared with those of the preceding one, stand thus:—

YEARS.	Remained.	Filed.	Total.	Decided.	Remaining.	Fees Collected.
						Rupees.
1033 ...	1,399	5,522	6,921	4,993	1,928	25,419
1034 ...	1,928	5,834	7,762	6,068	1,694	27,201

Criminal Justice :—

	CASES.					PRISONERS.			
YEARS.	Remained.	Filed.	Total.	Decided.	Remaining.	Remained and Admitted.	Discharged.	Remaining.	Total amount of Rations.
1033 ...	106	817	923	797	126	1,859	1,531	328	3,809
1034 ...	126	832	958	859	99	2,174	1,852	322	5,091

Of the 859 decided cases, 712 were disposed of by the Criminal Courts; 112 by the Sessions Courts; 19 by the Special Commission appointed to try and decide the cases which arose in connection with the Shanar disturbances in the South; and 16 by the Appeal Court.

Police.—In the year under review, 5,799 cases were before the Police, of which only 13 remained on the file undecided at the end of the year. Of the 5,799 cases above alluded to, no less than 4,800 were petty offences.

"A tolerably correct idea of the state of crime in the country may be formed by a reference to the number of cases disposed of by Zillah Courts and higher tribunals. Of the 712 cases disposed of by the Zillah Courts, a great number must be minor offences, though requiring higher penalties than could be awarded by the District Police. The more heinous crimes are therefore represented by the number of cases which came before the Sessions and higher Courts, and this number is no more than 147."

The use of torture with a view to exact confession of guilt or for any other purpose, may be said to have almost disappeared. False accusations against innocent parties were checked with satisfactory success. Exactions and oppressions on the part of minor public servants also comparatively diminished.

The tranquillity of the country was temporarily interrupted at the commencement of the year 1859, by disturbances which arose in the southern Districts, having their origin in the assumption by the Shanars of a dress similar to that worn by Soodra and Brahmin females. A very excited feeling prevailed for a short time. The necessary measures were adopted, and order was restored.

Jails.—At the end of the year, there were 527 convicts in the several jails; of these 5 were females. Of the above number 35 were life prisoners; 31 sentenced to confinement for periods varying from sixteen to twenty-eight years; 20 for eleven to fifteen years; 78 for six to ten years; and the remainder for not more than five years. The total number of deaths in the jail was 115, while for the previous year, it was 66. The increased mortality arose chiefly from cholera. The average monthly cost of maintaining and guarding the convicts, amounted to a little less than 3 rupees per head.

The Land Revenue, both in money and kind, amounted to Rs. 44,84,515.

The Customs yielded Rs. 2,27,529. The total Tariff value of Exports was Rupees 18,58,761, and that of Imports Rupees 13,91,000, thus making an aggregate of about 32½ lacs of Rupees. This amount, however, does not include the value of Pepper, Cardamoms and other articles of the Sirkar monopolies; nor of Bullion and Treasure, of which no accounts were kept. The total trade of the country may be fairly estimated at between 40 and 50 lakhs of Rupees. The following statement shows the Tariff values of the principal staple articles exported in the year 1034:—

Articles.	1034.
	Rupees.
Coffee	16,770
Coir	1,41,140
Jaggery	24,099
Copra	6,97,788
Dry Ginger	1,31,293
Chickeney	2,45,384
Tamarind	60,292
Dry Fish	37,752
Cocoanuts	65,732
Timber of several descriptions	90,312
Pinnaca Oil	33,097
Cocoanut Oil	98,018
Sugar-cane Jaggery	43,831
Turmeric	33,088
Total	17,18,596

Stamps yielded Rs. 1,222. Native *Salt* was sold to the extent of Rs. 1,47,907 and imported Salt to the amount of Rs. 2,11,181. The *Tobacco* revenue, which has annually risen, yielded Rs. 2,12,000 above that of the previous year, the sale having amounted to 4,406 candies against 3,123, the average from the native year 994 to 998. *Pepper* gave Rs. 1,87,824, Cardamoms Rs. 1,55,525, *Ivory* Rs. 3,707, and *Bees Wax* Rs. 2,987. The miscellaneous revenue was Rs. 3,18,667, the profit from the *Mint* Rs. 3,510 and from *Abkaree* Rs. 60,952.

The state of the English School was satisfactory. A sum of Rs. 18,478 was spent on Canals and irrigation works. Three coasting vessels were built at Allepey and 6 at Quilon. At the former 473 port clearances were granted, at the latter 153. The Director of the Observatory proceeded with the series of observations in connexion with a Magnetic Survey of Travancore. There were 2,880 visitors to the Museum, of whom 286 were females. A sum of Rs. 2,000 was sent to England for models of machinery.

Financial.—The total amount of Revenue was:—

In 1033 ... ... Rupees 42,11,698
„ 1034 ... ... „ 42,77,119

And the Disbursements:—

In 1033 ... ... Rupees 40,44,312
„ 1034 ... ... „ 40,03,588

ADMINISTRATION OF COCHIN.

1858-59.

THE late Dewan, Vençata Row, having retired by the direction of Government on a pension, T. Shungoony Menon was appointed as Dewan, and Vencata Soobia, First Judge of the Appeal Court, as Dewan Peishkar. Mr. Maltby reports that the present Dewan is the son of Shungra Warriar, whose vigorous and just administration of the country is remembered with gratitude by the people of Cochin, and there is every reason to believe that he will follow in the steps of his father.

Civil Justice.—The total number of suits in the year was 1,554 of which 521 remained at the end of it. There were 203 Appeal suits of which 137 remained. There were 417 Civil decrees executed and 3,548 remaining.

Criminal Justice.—There were 194 cases in the Zillah Courts of which 159 were disposed of. 84 were committed for trial by the subordinate Courts of which 63 were disposed of.

Police.—There were 887 cases on the file of which 825 were disposed of.

Revenue.—

		1033.	1034.
		Rs. As. P.	Rs. As. P.
Amount of Land Revenue collected		4,47,261 14 0	4,60,038 9 3
	Export. *Import.*		
Customs.	1033 12,186 5 9 17,271 7 3	29,259 8 1	0 0 0
	1034 11,642 10 4 19,029 13 0	0 0 0	30,672 7 4
Excise or Abkaree		6,061 5 2	6,089 13 2
Stamps		3,863 5 6	3,633 11 10
Salt		1,41,757 7 8	1,71,476 7 10
Tobacco		50,247 12 7	84,086 9 11
Teak and Black-wood logs, &c. ...		31,943 10 10	44,016 7 2
Pepper		2,365 14 6	0 0 0
Cardamoms and other Forest produce		3,433 12 1	0 0 0
Miscellaneous Revenue		97,251 7 9	94,200 3 11
Balance in the Treasury		1,35,799 13 2	1,02,202 13 9
Total		9,49,245 15 4	10,18,759 15 9

Three brigs and schooners, of 145 tons combined, were built. The amount expended on Public Works was Rs. 57,845. The number vaccinated was 8,470, of which 657 cases were unsuccessful. The number of in-patients in the Hospitals and Dispensaries was—252 admitted, 218 discharged and 1 died; of out-patients 1,486 admitted and 1,480 discharged.

Financial.—The receipts and disbursements were:—

		Receipts.	Disbursements.
In 1033 ...	Including Balance in the Treasury ...	9,49,245 15 4	8,37,143 13 4
„ 1034 ...		10,18,759 15 9	9,16,554 2 0

Ten lakhs were invested in Government Securities.

ADMINISTRATION OF THE POST OFFICE.

1859-60.

The total number of new Post Offices opened in all India during the year was only 26. The strength of the staff of officers and employés was—in Bengal 5,418, Madras 7,771, Bombay 4,173, and N. W. Provinces 10,308, making a total of 27,671. The mails were carried over 39,338 miles of road, of which 711½ were by Railway, 5,861½ by mail cart and on Horse-back, and 32,765 by runners and boats. The average cost per mile was—Foot Lines Rs. 2-1-1½; Horse Lines 13-6-8½; Mail Cart Lines 19-11-3 and Boats 11-6-9.

Extent of Correspondence.—There was a decrease during the year. The annexed table shows that the number of articles passing through the Post Office in the North Western Provinces is about one million less than was the case the previous year. The increase in other Presidencies reduces the falling off to about half a million.

Presidency.	One year prior to the introduction of the ½ anna postage in 1854-55.	1854-55.	1855-56.	1856-57.	1857-58.	1858-59.	1859-60.
Bengal	4,607,316	5,890,380	6,816,144	7,538,496	8,423,448	9,300,504	9,564,960
Madras	3,954,564	5,466,672	5,707,464	7,129,044	7,773,720	8,707,260	8,384,151
Bombay	3,511,056	6,304,260	7,101,768	8,709,828	11,607,168	15,145,272	15,177,816
North Western Provinces ..	7,009,740	11,136,288	12,676,584	13,883,052	14,503,644	18,424,068	17,367,072
Total	19,082,676	28,797,600	32,301,960	37,260,420	42,307,980	51,577,104	50,493,999

In 1854 the number of chargeable covers was—paid 4,547,868, unpaid 7,625,004 ; in 1859-60 the number was—paid 19,788,708, and unpaid 14,099,916, or a total of 33,888,624 against 12,172,872. The practice of sending unpaid letters prevailed most in the N. W. Provinces where the percentage to paid was 53, while in Bengal it was 43¼, in Madras 26, and in Bombay 33. The number of chargeable newspapers diminished considerably owing to the reduction in the number of European troops in the country, and the increased charge on newspapers received from England *vid* Southampton.

Year.	Paid and Unpaid Newspapers.
1854	1,516,644
1855-56	2,921,424
1856-57	3,455,808
1858-59	6,023,976
1859-60	4,883,976

The official correspondence of Bombay and the North-Western Provinces decreased; in Bengal and Madras it continued to increase; but, on the whole, the number of official letters was nearly half a million less than were written in 1858-59, though the postage chargeable on the service letters in 1859-60 amounted to Rupees 27,47,012-11-0 or Rupees 2,21,823-9-0 more than in 1858-59. There was a decrease also in the number of parcels. There was an increase in the number of book-packets in Bombay and the N. W. Provinces, but a falling off in Madras and Bengal. The proportion of registered letters increased. It was rather more than 1 per cent. of the whole.

Unclaimed Letters.—The following shews the total number received as such

Bengal...	207,869
Madras	123,642
Bombay	122,320
N. W. Provinces	230,088
Total	683,919

The following number was disposed of

Bengal	84,021
Madras	113,632
Bombay	86,764
N. W. Provinces	73,216
Total	357,633

District Post.—Its usefulness continued to increase notwithstanding irregularity and delay. The following table shows the number of covers sent for delivery through the district post during the year 1859-60:—

In Bombay the number of covers has doubled since 1855-56. It was 11½ lakhs in 1859-60 while in Bengal it was only 5½, owing to the want of an organised district post in the latter.

Presidency.	1855-56.		1856-57.		1857-58.		1858-59.		1859-60.
	Chargeable and Service Letters and Newspapers.	Paid Letters sent from Thanna to Thanna.	Chargeable and Service Letters and Newspapers.	Paid Letters sent from Thanna to Thanna.	Chargeable and Service Letters and Newspapers.	Paid Letters sent from Thanna to Thanna.	Chargeable and Service Letters and Newspapers.	Paid Letters sent from Thanna to Thanna.	Chargeable and Service Letters and Newspapers; and paid Letters sent from Thanna to Thanna.
Bengal	345,931	38,498	390,108	56,316	399,984	53,321	505,212	42,748	534,540
Madras	648,324	317,217	832,068	442,152	921,684	518,225	969,864	518,225	1,569,128
Bombay	601,896	148,929	no return.		no return.		no return.		1,151,368
N. W. Provinces ...	590,010	151,132	1,008,720	283,038	698,484	*110,047	905,822	232,402	1,672,625
Total	2,186,161	655,776	2,230,896	781,506	2,020,152	681,593	2,380,898	793,375	4,927,661

* In the Punjab only.

Complaints.—There were 1,696 made by the public of which 742 were in Bengal, 363 in Madras, 115 in the N. W. Provinces and 476 in Bombay. In 762 of these no blame was attributable to the Post Office. On this subject, Mr. Riddell, the Director General, says. "In noticing the short-comings of the Post Office Department in India, the public are apt to overlook the special difficulties which the Post Office in this country labors under from the want of efficient agents as sorters and letter-carriers; and I may also say that they equally overlook the points in which the Indian Post Office is far in advance of other countries. The Indian Post Office is in advance of the Post Office of the United States of America, and of many of the minor States of Europe, in that there is a free delivery of letters from house to house, whereas in the United States nothing of the kind is attempted, or where provision does exist, it is made the ground of an additional charge. The rate of postage charged for the conveyance of a single letter in India is lower than in any country in the world. The book post rate in India is also lower than in other countries. While the accommodation to the public, which is afforded by the parcel post, is not, I believe, given in any other country."

Offences.—Of cases of dishonesty on the part of Post Office Servants there were 79 in which legal convictions were obtained and 89 departmentally punished. There were 2 convictions for Highway Robbery and 48 in which the offenders were not traced. Of articles lost by any other fault than dishonesty there were 204 cases.

Bullock Train.—The profit was very considerable. In 1858-59 the surplus was 1½ lakh, in 1859-60 it exceeded 4½ lakhs

Receipts	9,44,788	2	9
Disbursements	4,75,246	2	4
Surplus	4,69,542	0	5

The Bengal Bullock Train was again taken under the management of the Post Office from 1st January 1860, and for 4 months shewed a surplus of Rs. 1,54,734.

Staging Bungalows :—

Presidencies.	1858-59.		1859-60.		Surplus.	
	Receipts.	Disbursements.	Receipts.	Disbursements.	1858-59.	1859-60.
Bengal	21,733 7 10	12,636 2 6	22,101 13 7	17,664 14 10	9,097 5 4	4,436 14 9
North-Western Provinces ...	56,378 3 7	43,359 10 3	72,449 7 8	53,275 8 7	13,018 9 4	19,173 15 1

Postage Labels.—The number of postage labels of each denomination sold in each of the four Presidencies, and the amount realized thereon, during the year 1859-60, is shown in the following table :—

Presidencies.	½-anna Label.	1-anna Label.	2-anna Label.	4-anna Label.	8-anna Label.	½-anna Envelope.	1-anna Envelope.	½-anna Note paper.	8-pie Label.	Total value. Rs. As. P.
Bengal	3,059,284	1,213,616	417,724	530,763	179,273	33,919	25,763	43,238	0	4,51,159 9 3
Madras	4,746,840	518,244	191,632	263,623	32,816	36,781	9,840	27,584	2,016	2,90,502 8 0
Bombay	5,020,752	657,323	203,881	343,000	83,940	41,241	12,880	20,543	0	3,54,671 4 9
North-Western Provinces	4,949,543	957,821	202,150	348,283	27,528	109,680	45,107	98,387	72	3,52,711 6 1
Total ...	17,776,419	3,347,004	1,015,387	1,485,669	323,557	221,624	93,590	1,89,752	2,088	14,49,044 12 1

This is more than the number sold in the previous year by upwards of 2 millions, while the number of stamped envelopes and sheets of note-paper was :—

1858-59	756,835
1859-60	504,966
Decrease	251,869

The Financial Results were satisfactory

Total Rupees	65,82,903	4	4
„ Disbursements	45,12,793	7	2
Surplus Rupees	20,70,109	13	2

Of the sum of Rupees 65,82,903-4-4, which forms the total of the receipts of the department, Rupees 27,47,012-11-0 are due from various public offices for letters sent under franks, without actual payment of postage.

Comparative Statement of the Receipts and Disbursements of the Post Offices in the four Presidencies of India, for 1859-60.

Presidencies.	Receipts.			Disbursements.			Surplus.			Deficit.		
	Rs.	As.	P.	Rs.	As.	P.	Rs.	As.	P.	Rs.	As.	P.
Bengal	8,17,942	6	7	7,62,614	8	6	55,327	14	1	0	0	0
Pegu	34,307	10	4	70,688	15	1	0	0	0	36,381	4	9
Eastern Settlements	88,964	10	1	12,809	10	9	76,154	15	4	0	0	0
Madras	4,85,879	10	5	7,46,227	14	0	0	0	0	2,60,348	3	7
Bombay	6,07,260	0	11	12,13,637	12	3	0	0	0	6,06,377	11	4
North Western Provinces ...	19,86,280	10	2	16,78,200	13	10	3,08,079	12	4	0	0	0
Director General of the Post Office of India ...	0	0	0	28,613	12	9	0	0	0	28,613	12	9
Total ...	40,20,635	0	6	45,12,793	7	2	4,39,562	9	9	9,31,721	0	5

ADMINISTRATION OF THE ELECTRIC TELEGRAPH DEPARTMENT.

1859-60.

THERE were 10,994 miles and 136 offices open during the year for public corresdondence. Great progress was made in the erection of iron posts and other durable supports. The Morse system of signalling was extended to the South East Coast and Ceylon, the whole Central India line from Bellary to Mirzapore *viâ* Hydrabad, Nagpore, and Jubbulpore. Of the 74 Morse assistants from England there were 52 in India. Almost all the signallers learned to receive messages by the *ear*.

The School of Signallers opened temporarily at Coonoor proved fully successful. In eleven months, it supplied fifty-eight signallers to the department. The total expenditure was Rs. 12,429, an average of Rs. 200 for each lad, while the signallers brought from England cost Rs. 1600 each.

The Staff of the Department was reorganised. Three officers of superior rank were appointed to the immediate charge of the western, southern, and eastern *Divisions* respectively. The Deputy Superintendents of *Circles* were placed under the direct control of these gentlemen, who were again subordinate to the Chief Superintendent.

Expenditure, &c.—

	TOTAL.
Bengal to Agra, ...	4,64,400 6 7
Bombay, ...	2,08,508 10 0
Madras, ...	2,65,627 0 0
Indore, ...	66,783 0 0
South East Coast, ...	33,451 0 0
East Coast, ...	1,37,187 0 0
Punjab, Rohilcund, and Oude	1,66,174 0 0
Central India, ...	1,15,121 0 0
Scinde, ...	1,21,231 1 0
Dacca, ...	40,767 0 0
Pegu, ...	51,177 0 0
General superintendence and audit, ...	50,000 0 0
Total, Rs.	17,20,427 1 7

The cash returns for private Messages amounted to Rs. 4,23,991 or 49·76 per 100, the amount in 1858-59 being Rs. 2,83,105.

Number of Messages.—The total number of messages sent in all India, Pegu, and Ceylon, was

Private.

In 1858-59 ... 101,164 | In 1859-60 1,70,566

showing an increase in number of 68.61 per 100, while the *service* messages were,

Service.

In 1858-59 ... 56,670 | In 1859-60 ... 31,868

the desired reduction in number having been effected most satisfactorily. Again, the value of the service messages was—

In 1858-59	... ...	Rupees 3,64,739
In 1859-60	... ...	„ 1,20,169

The number of messages sent by *native* merchants and correspondents during the two years was—

	Messages.
In 1858-59	39,724
In 1859-60	71,554

The increase proceeded mainly from the reduction of charges, but it would not have accounted for the increase in receipts but for the greater length of private messages. Thus there were in—

1858-59.			1859-60.		
55,299	of words	1 to 16	53,307	of words	1 to 16
23,220	ditto	17 to 24	37,992	ditto	17 to 24
14,298	ditto	25 to 32	19,549	ditto	25 to 32
6,099	ditto	33 to 48	11,127	ditto	33 to 48
2,241	ditto	48 and over.	4,964	ditto	48 and over.

With service messages paid for in cash the effect was the reverse—

1858-59.			1859-60.		
4,864	of words	1 to 16	3,667	of words	1 to 16
7,828	ditto	17 to 24	4,961	ditto	17 to 24
10,607	ditto	25 to 32	5,037	ditto	25 to 32
16,876	ditto	32 to 48	5,322	ditto	33 to 48
16,497	ditto	48 and over.	4,700	ditto	49 and over.

Of the 170,566 private messages sent in 1859-60, there were from each circle as follows :—

Bengal and North-Western Province to Agra ...	39,315
Bombay	43,228
Madras	31,030
Central India	6,336
Indore	5,491
East Coast	9,871
Ceylon and South-East Coast	10,766
Pegu	6,513
Punjab, Rohilcund, and Oudh	12,356
Scinde	5,660

Errors.—The repetition messages, being made optional, were a fifth of the former number. In 1858-59, the proportion of error in messages was 1 in 46 and in words 1 in 762. In 1859-60 the proportion was 1 in 65 messages and 1 in 1,182 words. The errors were chiefly in numbers and names. Sir W. O'Shaughnessy, the Superintendent, says—"the true wonder is that so few mistakes occur. The sufferer by such blunders generally appeals to the press, and cites his case as a specimen of the general working of the department. The conclusion is not just. Nothing is heard or known of the 1,182 words which have been sent correctly, while loud indignation is naturally expressed for the one error in that number." The sum of Rs. 2,847-1-0 was refunded being Rs. 0-10-8 on the total receipts of the year.

The Superintendent concludes his Report. "There is a great future before the Telegraph in India. By perseverance and determination it should be made the best in the world, inasmuch as it possesses a unity of organization unattainable elsewhere, with all the resources of the Empire to promote its extension and improvement. In two or at most three years from this time, the lines should yield a clear profit, and a *uniform minimum charge for messages may then be adopted for all India.* This, with the general use of some simple cypher by habitual correspondents, will enable the Telegraph to perform much of the present business of the post office; meanwhile, we have at our disposal, at a moderate cost, an instrument of such miraculous power, that by a single message it has already saved our Indian Empire, while day by day and hour by hour it is busy in the promotion of commerce and the furtherance of private interests of every kind."

OFFICERS OF THE LINE IN INDIA.

Parliamentary Paper.

On the motion of Colonel Sykes, 19th February 1861, a Return was printed shewing the number of officers of the Line who proceeded to India with their regiments between 1st May 1857 and 1st January 1861, the amount of their passage money and the number absent from their regiments.

Return, regimentally, of OFFICERS of the LINE who proceeded to *India* with their Regiments between the 1st day of May 1857 and the 1st day of January 1861; and of the Number of those who remained in *India* up to the latest Return received.

REGIMENTS.	Number of Officers who proceeded with them.	Number of such Officers remaining in India at date of latest Return.	REGIMENTS.	Number of Officers who proceeded with them.	Number of such Officers remaining in India at date of latest Return.
1st Dragoon Guards ...	29	14	51st Foot	37	17
2d ditto	28	10	54th Foot	39	15
3d ditto	29	13	56th Foot	41	23
7th ditto	28	13	57th Foot	32	17
6th Dragoons	28	16	60th Foot (2d Battalion) ...	26	None.
			Ditto (3d Battalion) ...	39	13
7th Dragoons (Hussars)	28	8			
8th ditto ditto ...	28	11	66th Foot	40	21
			67th Foot	36	None.
17th Dragoons (Lancers)...	25	9	68th Foot	39	19
			69th Foot	39	22
2d Battalion, Military Train	13	None.	71st Foot (Highlanders) ...	25	14
			72d Foot ditto ...	39	16
1st Battalion, 1st Foot	47	20			
Ditto 3d Foot	32	None.	73d Foot	26	10
Ditto 4th Foot	41	22	77th Foot	35	21
Ditto 5th Foot	27	4	79th Foot	45	21
Ditto 6th Foot	26	10	80th Foot	33	12
Ditto 7th Foot	52	19	82d Foot	51	19
Ditto 13th Foot	36	9	88th Foot	51	25
Ditto 18th Foot	40	15	89th Foot	33	14
Ditto 19th Foot	45	16	90th Foot	52	13
Ditto 20th Foot	38	12	91st Foot	31	17
Ditto 23d Foot	51	12			
			92d Foot (Highlanders) ...	30	17
28th Foot	33	23	93d Foot ditto ...	54	23
31st Foot	34	20			
33d Foot	38	15	94th Foot	41	17
34th Foot	39	14	95th Foot	39	20
37th Foot	30	13	97th Foot	41	15
38th Foot	45	20	98th Foot	39	20
			99th Foot	34	None.
42d Foot (Highlanders)...	40	22			
44th Foot	38	None.	Rifle Brigade, 2d Battalion	37	12
46th Foot	29	15			
48th Foot	31	17	Ditto 3d Battalion	41	18

Statement of the Amount of PASSAGE MONEY paid Annually on the Outward Voyage to *India* for Officers of the Line.

FOR WHAT PERIOD.	Amount.		
	£.	s.	d.
From 1 May 1857 to 30 April 1858	148,960	0	0
From 1 May 1858 to 30 April 1859	61,005	0	0
From 1 May 1859 to 30 April 1860	37,909	3	6
From 1 May 1860 to 1st January 1861	26,825	0	0
TOTAL ... ... £	274,699	3	6

Statement of the Amount of PASSAGE MONEY paid Annually for the Homeward Voyage from *India* of Officers of the Line.

FOR WHAT PERIOD.	Amount.			REMARKS.
	Rs.	*A.*	*P.*	
1 July 1857 to 30 June 1858...	190,530	4	0	No Return from Bombay from 1 July to 31 December 1857.
1 July 1858 to 30 June 1859...	241,809	12	0	No Return from Bombay.
1 July 1859 to 30 June 1860...	216,464	5	7	No Return from Bengal or Bombay from 1 January to 30 June 1860.
TOTAL ... ... Rs.	648,804	5	7	

Return showing the Number of OFFICERS Present with their Regiments in *India*, and those Absent at the latest Return; in the case of Absentees, distinguishing the Cause of Absence.

PRESENT ...	Including 111 Indian Officers attached ...		1,754
ABSENT ...	Staff employ		210
	Civil employ		17
	Colonels of Regiments		71
	Depôts in Great Britain and Ireland ...		329
	In transitu for exchange from Regiments or Battalions in India to Regiments or Battalions in England		8
	Furlough in India on medical certificate, or to Europe		144
	Furlough on private affairs		212
	Absentees from any other causes		218
	TOTAL		1,209

ADMINISTRATION OF THE NORTH WESTERN PROVINCES.

1859-60.

JUDICIAL—*Civil Justice.*—On 1st January 1860 there were 12,981 suits on the files against 19,150 on the same date in the previous year. There were 68,464 original suits and 5,703 appeals or 74,167 in all instituted against 45,570 the previous year, and 74,661 in 1856 previous to the mutiny.

Comparative Statement of Suits and Appeals decided on their merits.

	1858.		1859.	
	Decided on trial.	Finally disposed of.	Decided on trial.	Finally disposed of.
Moonsiffs' ...	23,710	54,255	48,512	66,372
Sudder Ameens'	1,241	2,388	2,258	3,924
P. S. Ameens' ...	2,878	6,145	5,823	9,347
Judges'	1,131	3,841	2,230	6,186
Total ...	28,960	66,827	58,823	85,829

Out of the number of original suits and appeals decided on trial in the year 1859, in all the Courts, 11,492 were *ex-parte*, and 19,733 on confession of judgment. The following statement exhibits the result of regular appeals from the decisions of the several local Civil Courts, the percentage of appeals admitted

to suits decided and of reversals to appeals tried and determined during the year under review :—

Courts.	No. of Suits decided.	Appeals admitted.	Appeals reversed and modified.	Appeals confirmed.	Proportion of appeals admitted to Suits decided.	Proportion of reversals to appeals tried.
Moonsiffs'	64,839	4,301	1,188	2,161	6·63	35·47
Sudder Ameens' ...	3,473	412	132	189	11·86	41·12
P. S. Ameens' ...	7,673	996	262	505	12·98	34·15
Judges'	2,704	394	6	1	14·54	85·71

On the 31st December 1859 there were pending in all the Courts 115 suits and appeals, which had been under trial for a longer period than a twelvemonth, to 95 on the 31st December 1856. 81 of these were owing to one Judge and one P. Sudder Ameen in the same district.

Duration of Suits.

Courts.	1856.		1858.		1859.	
	M.	D.	M.	D.	M.	D.
Moonsiffs'	2	20	4	28	3	3
Sudder Ameens'	4	28	7	28	4	6
Principal Sudder Ameens' ...	5	0	5	28	4	7
Judges'	4	26	6	19	6	7

There were 16,803 decrees completely executed, 8,859 partially so, 32,369 applications for execution of decree struck off, or a total of 58,031 disposed of in every way. Of the 65,429 suits 6,035 were for land rent, 6,992 for real property, 44,968 or 68·72 per cent. of the whole for Debts on Bond, and 7,434 other suits. The sum realised from the sale of stamps was Rupees 6,38,493. The following memorandum shows for each class of Court (Judges, Principal Sudder Ameens, Sudder Ameens, and Moonsiffs) the total value and costs of all suits, original and appeal, disposed of in 1859, the average value and costs of each suit, and the percentage of costs to value :—

Courts.	Total number of Suits disposed of (original and appeal).	Total value of ditto.	Total costs of ditto.	Average value of each Suit.	Average costs of each Suit.	Percentage of costs to value.
Judges'	2,614	34,04,296 9 4	1,74,378 3 0	1,432 13 5	72 4 2	11·65
P. S. Ameens'	6,693	54,61,984 3 6	6,45,854 11 10	1,273 11 0	134 14 10	11·66
Sudder Ameens'	1,962	7,49,570 5 2	1,22,542 15 3	448 6 1	65 2 5	15·
Moonsiffs'	65,094	38,21,687 5 6	7,02,105 6 8	59 8 8	11 5 1	18·43

The former of the two following statements shows the number of regular and special appeals pending, admitted, and disposed of in the Court of Sudder Dewanny Adawlut, in the years 1856 and 1859, and the latter exhibits the *manner* in which the appeals were disposed of.

Appeals.	Pending.		Admitted.		Disposed of.		Pending.	
	1856.	1859.	1856.	1859.	1856.	1859.	1856.	1859.
Regular	103	177	135	75	108	102	150	150
Special	53	291	161	578	167	145	47	724

Appeals.	Dismissed on default.		Adjusted or withdrawn.		Confirmed.		Amended.		Reversed.		Remanded.	
	1856.	1859.	1856.	1859.	1856.	1859.	1856.	1859.	1856.	1859.	1856.	1859.
Regular ...	10	36	2	2	54	38	17	6	23	17	2	3
Special ...	3	30	0	1	34	38	24	11	33	41	73	24

The Sudder Court report that the accounts submitted by the Zillah Judges shew that the most important benefits have arisen from the new Civil Code.

Criminal Justice:—

Persons under trial during the year.

Year.	Total number of cases.	Number of persons under trial.	Number of persons under trial at close of the year		
			In jail.	On bail.	Total.
1855	48,890	101,798	1,075	1,052	2,127
1859	36,767	72,447	808	875	1,683

The average proportion of acquittals in all cases, to the total number of persons tried, was for 1855 about 36½ per cent., and for 1859 about 43¼ per cent. There were 233,028 witnesses examined against 323,346 in 1855. The period of duration of a case in which Police investigation formed a part, was 1 day and 16 hours at the thannah, 17 days and 8 hours at the Magistrate's Court—total, 19 days. In cases in which the Police had no concern, that is in petty cases, the period of duration was 14 days. There was a marked increase in the number of sentences of corporal punishment in 1859, as compared with 1855; in the first year 1,372 persons were flogged, in 1859, 4,242. 3,642 persons were committed to the Sessions Courts, of whom 1,364 were convicted, 723 referred for the orders of the Nizamut Adawlut, and 1,333, or a proportion of 38·97 per cent. acquitted; 151 prisoners died or escaped under trial, and the commitments of 172 were cancelled. For criminal trials the general proportion of reversals to appeals was 37·05 per cent., and for miscellaneous cases 30·76 per cent. The sentences passed by the Nizamut Adawlut in the year under review, as also in the year 1855, is shown below:—

	1855.	1859.
Death	80	129
Transportation	160	198
Imprisonment for life	25	1
Above 12, and not more than 21 years ...	64	64
Above 5, and not more than 12 years ...	145	57
Not exceeding 5 years	307	46
Total	781	495

The average duration of cases referred to the Nizamut Adawlut during the year was 142 days from the date of the apprehension of the prisoner—the average in 1858 was 191 days. The system of *vivâ voce* proceedings in pretty criminal cases was introduced into the non-regulation districts.

The Military Police had heavy work during the year and performed it well. The Meena marauders were put down by a combined force from the Meywar, Jeypore and Boondee States accompanied by Captain Beynon. The crime of poisoning on the Grand Trunk Road revived. Measures were successfully taken to reclaim the Nuts and Sanseeas, predatory tribes of Moradabad:—

Result of the disarming operations.—It is calculated that about 1,432,906 weapons of all descriptions remained un-surrendered.

	Pieces.
Ordnance	795
Fire Arms	307,372
Swords	1,421,223
Spears	664,015
Daggers and other lethal weapons ...	1,215,275
Total	3,631,180

There were frequent cases of murder and assaults by European soldiers on the march, until the Commander-in-Chief issued orders on the subject. The crime of female infanticide was as prevalent in Benares, and there only, as before the Rebellion. Two suttees were reported in the Saugor and Nerbudda territories. Suicides were also prevalent there. The cost of the repair of the civil buildings in the North Western Provinces, which the adjacent inhabitants had taken no pains to protect, and which were consequently destroyed during the mutiny, was met by a cess levied on the inhabitants of the principal cities and towns, and their vicinities. The cess was collected without opposition.

Abstract Comparative Statement of serious predatory offences committed in the several Divisions of the North Western Provinces, during 1855-56 *and* 1859-60.

Description of Crime.	Meerut.		Agra.		Rohilcund.		Allahabad.		Benares.		Jhansie and Jubbulpore.	Kumaon.		Nimar.		Neemuch.		Ajmere and Mhairwarra.		Total.		Remarks.
	1855-56.	1859-60.	1855-56.	1859-60.	1855-56.	1859-60.	1855-56.	1859-60.	1855-56.	1859-60.	1859-60.	1855-56.	1859-60.	1855-56.	1859-60.	1855-56.	1859-60.	1855-56.	1859-60.	1855-56.	1859-60.	
Dacoities with murder	0	0	0	1	1	0	5	2	0	5	3	9	0	1	0	0	0	4	0	0	9	22	
Ditto torture	0	0	0	0	0	0	0	0	0	0	1	11	0	0	0	0	0	0	0	0	1	11	
Ditto wounding or serious injury	0	0	0	0	0	0	3	0	2	2	6	1	0	1	0	0	0	5	0	0	12	9	
Ditto simple	0	0	0	7	0	0	3	2	10	26	5	11	0	0	0	3	0	2	0	1	18	52	
Highway robberies with murder	1	0	1	0	1	1	3	1	1	0	1	3	0	1	0	0	0	0	0	1	8	7	
Ditto torture	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Ditto wounding or serious injury	6	12	10	5	7	7	13	5	5	5	17	4	0	0	0	0	0	5	0	3	58	46	
Ditto simple	2	29	9	8	5	13	2	11	10	33	50	107	0	0	0	15	0	34	0	16	78	266	
Burglaries with murder...	3	0	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	6	0	
Ditto wounding or serious injury	11	7	20	2	16	11	3	0	1	0	6	0	0	0	0	0	0	10	0	0	57	30	
Thefts with murder, including murders of children for the sake of their ornaments	4	11	11	14	12	7	18	8	12	5	7	1	0	1	0	0	0	0	0	0	64	47	
Ditto with wounding or serious injury, including thefts by drugging	14	19	28	19	17	11	8	1	18	7	6	4	0	1	0	0	0	6	0	0	91	68	
Cattle-stealing with murder	3	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	
Ditto wounding or serious injury	4	7	3	0	3	0	0	0	1	0	1	0	0	0	0	0	0	2	0	0	12	9	

Jails.—During the mutiny about 19,217 prisoners escaped from jail. Of this number 4,962 were restored to custody; of these 1,183 surrendered themselves, and 3,779 were recaptured, so that about 14,267 of these men were still at large. 124 men escaped during the year of whom one half were recaptured. A return to the system interfered with by the mutinies, of 6 Central jails at Agra, Meerut, Bareilly, Benares, Allahabad and Jubbulpore, was carried out and intramural labour resorted to. Out of 13,015 prisoners in confinement in the jails at the close of the year, only 956 could read and write—40 of these had learnt these arts since their conviction. The ratio of mortality was 10·73 per cent. This is higher than that of former years, and is attributed to the wretched state of many of the prisoners at the time of admission. The daily average number of prisoners throughout the year was 13,865, and the total expenditure, Rupees 6,41,933-12-3, or Rupees 46-4-9 per annum for each prisoner, which is a higher ratio per head than in former years. The net profits on the sale of manufactured articles during the year were Rupees 30,115-11-7, and the value of manufactured goods in store, Rupees 18,806-6-9. In the month of August the life prisoners in the Nimar jail rose, and made themselves masters of the Mundlaisur Fort in which they were confined. While Captain Hawes, the Superintendent, was directing the fire of two guns against them, he was shot dead. In the darkness of the night 208 prisoners succeeded in making their escape, carrying with them 76,960 Rupees. Of these, however, 200 men and 34,273 Rupees were recaptured, owing to the exertions of the police, aided by 100 sowars placed at the district officer's disposal by the Maharajah Holkar. Some of the ringleaders were executed, and others sentenced to various periods of additional imprisonment.

Revenue—*Land.*—Full details will be found at page 77 of this volume.

Customs and Salt.—The aggregate income of the year from all sources was 67,76,843 Rupees, of which about 40¾ lakhs were realized in the Divisions under the Government of the North Western Provinces, and above 20 lakhs in that under the Punjab Government. Of the entire sum about 58¾ lakhs were collected for salt. The following table gives further details:—

	North Western Provinces.	Punjab.	Total.
Salt, ...	36,35,272	22,38,834	58,74,106
Sugar, ...	2,66,587	4,52,357	7,18,944
Sundries, ...	1,68,364	15,428	1,83,792
Total, ...	40,70,223	27,06,619	67,76,842

The percentage of the costs of collection of every kind was 20 and 5-16ths. On the whole line there was a net increase over the previous year of Rs. 3,46,863. The net increase on Salt was Rs. 1,77,124. But for the recent enhancement of duty there would have been a deficit as 223,649 maunds less were imported.

Education.—In February 1860, 9,621 Colleges and Schools in the North Western Provinces contained 1,51,112 students, of whom 1,758 were found in 8 Anglo-Vernacular Government Colleges and Schools, 4,168 in 37 Missionary Educational Institutions, 15,109 in 257 *Tuhsili* Schools, 63,821, in 2,670 *Hulkabundi* Schools, and 66,256 in 6,649 Schools maintained by the people; 465 native girls were receiving instruction in 7 Government and 10 private Schools. Three Normal Schools (at Agra, Meerut and Benares) trained and sent out in the course of 1859, 628 Tuhsili and Village schoolmasters. From data obtained by careful enquiry in the Benares circle, Mr. Reid assumes that 2,28,000 out of the 3,50,000 boys in the North Western Provinces attended school for shorter or longer periods in 1859. In the *Government Colleges and High Schools* attendance increased from 1,332 at the close of 1858 to 1,610 at the end of 1859, as shown in the following tabular statement:—

Year.	Agra.	Benares.	Bareilly.	Ajmere.	Saugor.
1858	268	373	202	154	335
1859	380	483	228	194	325

The expenditure on the three Colleges and two High Schools amounted in 1859 to Rupees 1,62,170-15-2, the average cost per student being Rupees 122-1-6. Eight candidates passed the Calcutta University Entrance Examination, two of them standing in the first class. Government, and other employment, was secured by seventy students, the highest, lowest, and average salary being Rupees 150, 5, and 33 per mensem. A sum of Rs. 1,054-8 per mensem was given for 151 Government Scholarships.

Anglo-Vernacular Schools.—There were three at Allygurh, Shahjehanpore and Phillibeet. The attendance of boys amounted to 177 ; the cost of the schools in 1859-60 was Rupees 3,906-1-11.

Tuhsili Schools.—There were 213 containing in all 13,251 scholars, at a cost of Rs. 60,735-11-9 and an average per pupil of Rs. 5-3-8 a year.

The Hulkabundi Schools amounted to 2,651 with 63,705 scholars, of their total annual cost, Rupees 1,54,628-3-4 or 87 per cent. was defrayed by the Zemindars. The average cost per boy is 2-14-5 a year. The annexed Table shows how rapidly these schools regained ground.

	Close of 1857-58.		Close of 1858-59.	
	Schools.	Scholars.	Schools.	Scholars.
1st Circle, ...	211	3,559	672	15,708
2nd ditto, ...	439	5,724	931	26,214
3rd ditto, ...	237	4,039	721	16,154
4th ditto, ...	102	2,163	327	5,629
Total, ...	989	15,485	2,651	63,705

The Indigenous Schools are independent of Government, and beyond Government control. But by friendly inspection and judicious encouragement, they were largely influenced by the Educational Department. The fact of their number increasing from 3,915 in 1857-58 to 6,646, with 65,583 pupils in February 1860, is satisfactory evidence of their recovery from the shock which they sustained in 1857. The total number of these schools was 6,646 containing 65,584 scholars. Rupees 2,58,989-7-8 were expended by their private supporters on Indigenous schools in 1859-60, the average cost per school being Rupees 38-15-6 a year. The Hulkabundi frequently takes the place of the Indigenous school.

The Normal Schools turned out in 1859, 628 teachers at an average cost of 53-0-7 per man, the aggregate expenditure having been Rupees 33,307-5-1. They are intended to supply teachers for the 9,520 Vernacular Schools with their 142,539 boys, which are found in these Provinces, and their importance can hardly be over-rated. Since their establishment they have prepared 1,514 teachers and candidates for teacherships at an expenditure of Rupees 80,594-4-5.

Female Schools.—The girls' schools which numbered 288 just before the mutiny, were swept away by the disturbances of 1857. In place, however, of proceeding on the system formerly adopted, *viz.*, the simultaneous establishment of a large number of girls' schools under untrained male teachers, Mr. Reid enlisted the services of one of the native teachers, attached to the Agra College, Kaliyan Singh, a Jat of family and influence, who undertook to supply school-mistresses, principally of his own caste, duly trained and instructed. They are placed in charge of a school, as soon as they are qualified to teach the more elementary books. The Moonshee had, at the close of 1859-60, 8 schools, with 146 pupils, under his charge.

Grants-in-Aid.—Rupees 15,872 were expended in 1859-60 on grants-in-aid of 9 schools maintained by Christian Missionaries imparting "sound secular instruction" to 621 boys, the average cost to the Government of each pupil being Rupees 17-14-0, and to the private supporters of the schools Rupees 42-12-8 per annum.

Printing Operations.—119 works, mostly reprints, consisting of 8,03,700 copies, issued, or were passing through the Press.

The Thomason College prospered during the year. The Lieutenant Governor called for data with the view of asking the sanction of the Government of India for an Observatory at Roorkee and a Professorship of Astronomy.

PUBLIC WORKS.—The department was composed of eleven Divisions of Public Works, and four of roads, extending over 928 miles. For the several works in these fifteen Divisions, the Government of India fixed the limit of expenditure during 1859-60 at 51,08,885 Rupees. Of this sum 50,97,000 Rupees were actually expended. This includes Rs. 4,11,068 drawn for fixed establishments, a percentage of 8,075. Two-thirds was spent on military works chiefly for the accommodation of troops. Two new lines of road were completed within the year, the one leading from Meerut to Roorkee, 66 miles; and the other from Bewar (on the Grand Trunk Road, near Mynpoory) to Futtehgurh, 23 miles. The cost of the former is roughly estimated at 1,70,000 Rupees, and of the latter at 64,344 Rupees.

Canals.—The year 1859-60 was an unusually dry one; the rains were very scanty, and the Ganges commenced diminishing in volume early in September, while during the rubbee season the usual fall of rain almost entirely failed. Of new lines of Rajbuhas 242¾ miles were constructed during the year. The total mileage of rajbuhas to the close of 1859-60 was

In the Northern Division	...	186 miles.
Ditto Upper Central ditto	...	182 „
Ditto Lower ditto ditto	...	409 „
Ditto Etawah ditto	...	249 „
Ditto Cawnpore ditto	...	209 „
Total miles	...	1,235

Rupees 4,90,000 were sanctioned by the Government of India towards the completion of the rajbuha system of the Ganges Canal.

Local Funds.—The following was expended in each district on public works during the year. The amount available was far larger than in ordinary years, owing to the large balances which had accumulated in consequence of the small amount of work which the Committees were able to execute during the year 1858:—

Division.	District.	Amount. Rs.	As.	P.
Meerut ...	Dehra Dhoon ...	6,246	0	0
	Saharunpore ...	27,226	0	0
	Mozuffernugger ...	25,847	0	0
	Meerut	32,144	0	0
	Bolundshuhur ...	73,344	0	0
	Allygurh	81,172	0	0
Rohilcund ...	Bijnour	32,534	0	0
	Moradabad ...	24,866	0	0
	Budaon	32,460	0	0
	Bareilly	1,02,954	0	0
	Shahjehanpore ...	42,610	0	0
Agra	Agra	13,800	0	0
	Muttra	72,333	0	0
	Furruckabad ...	75,967	0	0
	Mynpoory ...	71,598	0	0
	Etawah	27,785	0	0
	Etah	13,344	0	0
Allahabad ...	Cawnpore ...	90,800	0	0
	Futtehpore ...	60,654	0	0
	Allahabad ...	48,000	0	0
	Banda	32,097	0	0
Benares ...	Benares	33,653	0	0
	Jounpore ...	21,224	0	0
	Mirzapore ...	23,136	0	0
	Ghazeepore ...	27,718	0	0
	Azimgurh ...	24,250	0	0
Goruckpore ...	Goruckpore ...	36,670	0	0
	Total ...	11,54,432	0	0

Financial.—The following reduction in the Military Police was effected.

Name of Corps or Establishment.	Saving per mensem.		
Goruckpore Recruiting Depôt	429	10	5
Mynpoory Auxiliary Force	15,529	8	10
Goruckpore Police Levy	4,375	6	0
Etawah Yeomanry Levies	8,843	15	10
Corps of Jezailchees	9,800	0	0
Total per mensem	38,978	9	1
Grand Total per annum	4,67,742	13	0

Ecclesiastical.—Two Ministers of the Church of Scotland were placed at the disposal of the Government. One was posted to Allahabad, the other to Meerut. The churches injured during the rebellion were repaired by the State and by cesses levied in the neighbourhood.

Political and Military.—In the cold weather a force under Brigadier Wheler completely scoured the Bundlecund Districts, and with the best effect, as no rebel leader of note has since shown himself in those parts; although a few men, if of minor repute, yet of desperate character, such as Dowlut Sing, still find a haven in the neighbouring jungles, from which they sally out to plunder and destroy. Up to the 31st December 1859 no less than 136 cases had been submitted by the several Special Commissioners for the confirmation and final orders of Government. Hickmutoolah Khan, the late Deputy Collector of Futtehpore, who was supposed to have been concerned in the murder of the Judge, Mr. Tucker, was tried for being a leader in rebellion, convicted after a very laborious inquiry, and sentenced to transportation for life. Since the expiration of the year three rebels of note were captured, tried by Special Commissioners, and sentenced capitally. The one was Khan Bahadoor Khan, the notorious Nazim of Bareilly, who was delivered up by the Nepalese. Another was the hardly less infamous Runmust Singh, who was the chief of the band who murdered the two Railway Engineers, Messrs. Evans and Limnell, in the Banda District, and who was surrendered, owing to the exertions of Captain Osborne, through the medium of the Maharajah of Rewah. The third was Joala Pershad, who was concerned in the massacre of Europeans at Cawnpore.

More recently the Ex-Nawab of Nujeebabad, Mahmood Khan, who had escaped into Nepal and surrendered himself to the officers on the frontier, returned to Moradabad in disguise and under a feigned name. He was discovered at Rampoor, and delivered up by the Nawab to justice. A statement is subjoined, showing the results of the cases referred to Government;—

1.	2.	3.	4.	5.	6.	7.
Number of cases referred.	Number of cases in which sentence of death was recommended.	Number of cases in which the penalty of death was remitted by Government.	Number of cases in which sentence of transportation for life was recommended.	Number of cases in which sentence of transportation for life was remitted or mitigated.	Number of other cases.	Number of cases in which the sentence recommended was remitted or mitigated.
136	33	16	22	4	81	10

The Special Acts of 1857, which had been more than once renewed, would expire at the end of the current year; and it was hoped that, before that time, all cases for the trial of which they provide, would have been disposed of.

Agriculture—Tea.—The following shews the working of the Government Tea Plantations in Kumaon, Gurhwal, Deyrah Dhoon, &c., during the last season, 1859-60.

The out-turn of tea by the different factories was:—

KUMAON PLANTATIONS,

HAWULBAUGH FACTORY.

Black Teas—						
Souchong	lbs.	1,554	4			
Bohea	„	722	8	=	2,276	12
Green Teas	„	5,228	8	=	5,228	8
Total, lbs. ...					7,505	4

AYAR TOLI FACTORY.

Black Teas—						
Souchong	lbs.	1,499	0			
Pouchong	„	320	0			
Bohea	„	165	0	=	1,984	0

BHIMTAL FACTORY.

Black Teas—					
Souchong	lbs.	1,151	8		
Pouchong	„	76	10		
Bohea	„	247	11	=	1,475 13

GURHWAL PLANTATIONS,

PAOREE FACTORY.

Black Teas—					
Souchong	lbs.	4,596	15		
Pouchong	„	4,184	10		
Bohea	„	710	0	=	9,491 9

DEYRAH DHOON PLANTATIONS,

KOLAJSIR FACTORY.

Black Teas—					
Fine Souchong	lbs.	1,962	0		
Souchong	„	1,063	0		
Pouchong	„	16,026	0	=	19,051 0
Green Teas	lbs.	3,768	0	=	3,768 0
Total, lbs. ...					43,275 10

Add to this the yield of the

KANGRA PLANTATION.

lbs. ...	29,312	0
Grand Total, lbs. ...	72,587	10

which shows an aggregate yield of lbs. 72,587-10 ozs., being a considerable increase on the preceding year, and by each plantation an increase has been produced. Of the whole 62,000 lbs. were packed for the Commissariat Department and the rest reserved for private sale. One hundred tons of seeds were distributed gratis.

Silk.—An experiment was instituted at Mussoorie, in July 1858, having for its object the eventual cultivation of the wild Himalayan silkworm, known as *Bombyx Huttoni*, and for this purpose Captain Thomas Hutton was instructed to form a plantation of the indigenous mulberry trees, three years being granted in which to finish the work. In November, however, Captain Hutton reported unfavourably of the chance of future

success, because the wild mulberry tree is of very slow growth. Captain Hutton, however, represented that experiments already tried with the domesticated *Bombyx Mori* of Cashmere, and with Madrassee (*B. Cræsi Nob.*) of Bengal, had proved, beyond a doubt, not only that the worms throve well in the climate of Mussoorie, but that there was also a ready and remunerating market for their silk. But, owing to the financial pressure, Government did not prosecute the experiment further. The question of undertaking experiments for the production of flax fibre was under the consideration of Government.

Forests.—The management of the Chilkea forest tracts was transferred from Moradabad to Kumaon. The revenue, which was about 2,500 Rupees, is calculated to reach 10,000 Rupees in three or four years, and it may rise to 15,000 Rupees. The result of the sale of the timber in the Kumaon forests, after deducting all expenditure on account of the preparation of timber, establishments, and transport, was a clear gain to Government of 1,03,631 Rupees.

The Survey operations progressed successfully in Jhansee under Lieutenant Vanrennen. A party was detached from Nagpore to commence operations in the Saugor and Nerbudda Territories.

Vaccination.—

Proportion of vaccinated during 1859-60 *to population.*

District.	Population.		Vaccinated.	Per Cent.
Agra	10,01,961		... ...	... ...
Muttra	8,62,909		... ...	... ...
		18,64,870	85,982	4·61
Allyghur...	... ...	11,34,565	1,24,904	11·00
Furruckabad	10,64,607		... ...	... ...
Mynpoory	8,32,714		... ...	... ...
		18,97,321	67,071	3·53
Grand Total ...	... ...	48,96,756	2,77,957	5·67

The operations increase in success year by year.

Divisions.	Income during the Year 1859.				Patients treated.		
	From Government.	European Subscription.	Native Subscription.	Total.	In-door.	Out-door.	Total.
Meerut	11,985 0 2	194 0 0	60 0 0	12,239 0 2	888	36,761	37,649
Agra	15,850 5 8	0 0 0	18,583 8 0	34,433 13 8	1,392	33,732	35,124
Rohilcund	16,086 11 8½	95 0 0	1,843 2 5	18,024 14 1½	1,451	92,977	94,428
Allahabad	10,118 0 0	1,585 0 0	1,350 1 3	13,053 1 3	1,362	23,175	24,537
Jubbulpore	3,599 3 11	796 9 4	513 0 8	4,908 13 11	3,618	8,101	11,719
Jhansie	1,322 11 4	667 14 0	458 13 3	2,449 6 7	242	976	1,218
Goruckpore	2,455 15 11	213 0 0	252 0 0	2,920 15 11	126	5,799	5,925
Ajmere	1,967 0 1	35 0 0	256 0 0	2,258 0 1	131	6,801	6,932
Kumaon	7,133 0 2	0 0 0	240 0 0	7,373 0 2	585	9,425	10,010
Nimcar	1,944 4 8	0 0 0	0 0 0	1,944 4 8	0	0	0
Benares	15,463 15 2	334 0 0	1,874 0 0	17,671 15 2	859	67,043	67,902
Jawud Neemuch ...	548 1 2	0 0 0	0 0 0	548 1 2	6	806	812
Grand Total ...	88,474 5 11½	3,920 7 4	25,430 9 7	1,17,825 6 10½	10,660	2,85,596	2,97,256

The amount contributed by natives in support of these institutions for the benefit of the poorer portion of the community, is only 25,430 Rupees, of which 18,275 Rupees were collected in the town of Muttra alone.

Agra Medical School.—On the 15th April eighty-five candidates presented themselves for examination; of these forty passed, and were admitted. The number of students attending the classes on the 1st May were,

Senior Class	19
Second ditto	22
Junior ditto	11
Newly admitted	36
Total paid students	88
Free ditto	8
Total	96

Which is the same number that were in attendance at the same time in the previous year.

Miscellaneous.—During the year the Lieutenant Governor directed the republication of Elliot's Glossary at the press of the Roorkee College. The edition of 600 copies when completed will readily sell at 6 Rupees per copy.

ADMINISTRATION OF BENGAL.

1859-60.

On the 2nd of May 1859 Mr. Grant was appointed Lieutenant Governor of Bengal, in succession to Mr. Halliday, who retired on the 1st of May. The Provinces subject to the Lieutenant Governor comprise Bengal, Behar, Orissa, Assam, Cachar, the Cossyah Hills, Arracan, the Chota Nagpore Territory, and the part of Sikhim attached to Darjeeling. They contain 253,000 square miles, with a population moderately estimated at forty millions. They produce one-third of the gross revenue of the Empire. They contain a much larger number of European British subjects employed in agriculture, commerce, and manufactures, than all the rest of India put together.

JUDICIAL—*Civil Justice.*—The year was prolific in litigation, 105,585 suits being instituted in the Civil Courts or 16,025 more than last year. The Code of Civil Procedure came into force in July 1859. The new law prohibits all written pleadings; though each party, if he pleases, is permitted to file a written statement of his case; the issues are then laid down, a day is fixed for trial, and on the day fixed, if possible, a decision is pronounced. As an extra safeguard against chicanery and fraud, no complaint is admitted without verification; every plaintiff, when presenting his petition, is required to declare that, to the best of his information and belief, the allegations contained in the petition are true, and a false averment subjects the delinquent to the penalties attached to the crime of perjury. The novelty of these provisions led to a large increase of suits instituted under the old system. The following shews the description of suits:—

Suits connected with land rent	...	...	20,654
Otherwise connected with land	...	...	11,347
Connected with wages, debts, &c.	...	...	70,003
Connected with caste, religion, &c.	...	...	503
Connected with indigo, sugar, silk, &c.	...	...	3,078
Total	...	...	1,05,585

Of cases connected with caste scarcely any were instituted in the suburban districts. Two-thirds were brought in the 4 districts of Eastern Bengal. The average value of the suits is not shewn, but their duration varied. In the Moonsiffs' Courts the average duration was five months and eleven days, in the Zillah Courts of the Judges it was six months and eleven days, while before the Court of Sudder Dewanny Adawlut suits were pending on an average for one year and ten days. In the Non-Regulation Provinces 17,057 suits were instituted during the year. In the Regulation Provinces 40,764 were decided in favour of Plaintiffs and 20,441 of defendants; in the Non-Regulation Provinces, 7,193 in favour of Plaintiffs, and 719 of defendants.

Criminal Justice.—During the year 36,369 persons were acquitted; while 67,910 persons were either committed to the Sessions or convicted by the Magistrates. Out of the latter number 32 were capitally condemned; 4 were imprisoned for life; 203 were transported; and the remainder were either fined or sentenced to various terms of imprisonment. Magistrates

were compelled to record in their own language and in their own handwriting the substance of every deposition, and Judges enjoined carefully to test the accuracy of these English abstracts by comparing them with the Bengalee proceedings of the case. By this means a strict supervision was exercised over every Executive Officer in the Province. This was an experimental measure, preparatory to the eventual abolition of the vernacular record, when the necessary alteration in the law shall have been made. The *vivâ voce* system of trial everywhere gave satisfaction in the Non-Regulation Provinces and was introduced as far as the law permitted into those under the Regulations. The following shews the number of crimes reported in the year and the ratio to population:—

	Number of offences.	Number of population.	Crimes and offences to population.
1858-59	120,712	38,343,474	1 to 318
1859-60	121,370	38,402,965	1 to 311

Few were of a really heinous nature, 600 were offences against the person, and 1,606 against property with violence. The figures shew that murders diminished with advancing civilisation. In the suburban district of Nuddea there were only 11 in a population of 3,262,254, while there were 59 in the jungly district of Singbhoom with only 260,998 inhabitants. The following figures shew how vigorous were the exertions of Government to check Dacoity.

Year.	*No. of Cases.*
1852	... 520
1856	... 292
1858	... 190
1859	... 171

A Dacoity Commission was established for Behar. A small gunboat was sent to cruise about in those Sunderbund channels where the crime was most prevalent.

Police.—The *Military* police, employed for the suppression of riots and violent breaches of the peace, consisted of ten battalions of Infantry and three squadrons of Cavalry, besides the Sumbulpore Battalion and the Kookie Levy. These battalions were first

organized in 1858. Their average strength was 700 men. The battalions were largely recruited from the rude but hardy tribes of the Non-Regulation Provinces, each consisting of men of the same race. Each battalion is officered by one Commandant and four Lieutenants, with the usual complement of Native Officers. An Officer, called the Inspector General, directs and controls the movements of the whole force. The Military police were of great use in repelling an incursion of the Kookees and in quieting excitement in the indigo districts. The steps taken last year to increase the pay and so improve the character of the *thannah* police had not time to bear fruit. In the large Non-Regulation Province of Chota Nagpore, the objectionable power of recording confessions, and of examining witnesses, was withdrawn; in ordinary cases the Police are required to condense all that it is requisite to know in a single sheet of a concise and well arranged statement.

The Magistracy.—A great increase had been made since 1857. The number of Deputy Magistrates had risen from 100 to 170. Large districts were split up into convenient sub-divisions, justice was brought near each man's door and the result was that violent breaches of the peace nearly ceased, and the ryot feeling now secure of the protection of the law, assumed a little of that independence which the just and impartial administration of the law, in a practical form, alone can give. To increase the efficiency of Deputy Magistrates, all were required to pass the Junior Civil Servant examinations.

Prison Discipline.—See full details at page 59 of this volume.

REVENUE—*Land.*—The following shews the amount for a series of years:—

YEARS.	DEMANDS.	COLLECTIONS.	REMISSIONS.	BALANCES.
1844-45	401,41,269	352,58,183	5,90,661	42,92,425
1849-50	383,43,540	346,44,912	5,12,752	31,85,876
1854-55	407,80,133	370,62,148	2,35,508	34,82,477
1858-59	409,45,048	374,17,000	1,91,865	33,36,183
1859-60	412,09,352	377,35,231	2,47,098	32,27,023

The New Rent Law (Act X. of 1859) and the New Sale Law (Act XI. of 1859) introduced important changes into the revenue department, but the provisions of neither were largely resorted to. The Sale of the *Khas Mehals* proceeded slowly. The assessment of fisheries on navigable rivers was authorised, the object being to make that revenue available for the improvement of the communications of the country. In several cases the right was contested.

Customs.—The net revenue which was in 1840-41 Rupees 43,74,090 had risen in 1859-60 to 199,52,112 adding the collections at the Maulmain Custom House; the total was:—

Years.	Receipts.	Charges.	Net revenue.
1856-57	146,50,488	5,64,812	140,85,676
1857-58	131,80,453	5,75,001	126,05,452
1858-59	162,34,819	5,45,491	156,89,328
1859-60	205,94,124	5,61,031	200,33,098

The enhanced duties levied under the new Customs Acts passed in March 1859 and March 1860 led to the introduction of certain reforms in the Custom House Department, for the more effectual prevention of smuggling. To allow of increased Custom House accommodation new opium godowns were constructed. Storage room was increased in Calcutta so as to be available for nearly a million maunds of imported Salt.

Abkarry.—The following statement exhibits a comparison of the results of the year under report, with those of previous years :—

Years.	Demands.	Collections.		Balance being difference between Columns 2 and 3.	Charges.		Net Revenue realized.	Increase in period of past 5 years.	Decrease in period of past 5 years.
		Spirits or Drugs.	Opium.		General.	Cost of Opium at 5-8 per seer.			
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1844-45 ...	20,80,933	19,07,873	3,44,396	1,73,060	1,80,784	88,855	19,82,630	.....	.....
1849-50 ...	12,17,702	12,14,001	3,63,122	3,701	4,04,734	1,47,244	10,25,145	.....	9,57,485
1854-55 ...	26,29,210	25,75,744	7,64,995	53,466	2,83,357	3,21,032	27,36,350	17,11,205	.....
1858-59 ...	32,21,354	30,57,092	10,38,295	1,64,262	2,78,331	4,24,187	33,92,869	.....	.....
1859-60 ...	33,41,061	32,72,611	11,85,995	68,458	2,75,546	4,45,986	37,37,074	10,00,724	.....

The charges on the collections of 1859-60 were slightly above 16 per cent. The Lieutenant-Governor ordered, whenever practicable, the abolition of out-stills, and the introduction of the sudder distillery system, which taxes, at a fixed rate, every gallon of spirit brought into the market for consumption. The excise duty on Bengal rum was raised from 1 to 3 Rs. a gallon, equal to that on the imported article. The duty on country spirit was about doubled, wherever the new system was introduced, and the duty upon gunja raised from 1 to 2 Rupees a seer.

Opium.—The aggregate receipts and charges were :—

	1857-58.	1858-59.	1859-60.
Receipts	521,00,669	467,08,472	429,67,438
Charges	88,83,637	77,43,126	66,14,575
Net Revenue	432,17,032	389,65,346	363,52,863

The above statement shows not only the amount realised at the opium sales in Calcutta, but also the prime cost of the opium supplied to the Abkarry Department for local consumption in the Presidency of Bengal. To check the decrease in the cultivation of opium which had continued since 1855, the price paid to the peasant was raised from Rs. 3-4 to 4 a seer. The out-turn in 1848 was 36,000 chests, and as it was considered that 36,000 chests would be an ample provision for future years, any further extension of the cultivation was strictly prohibited. In 1850 the restriction on the cultivation was withdrawn, and the price paid to the cultivators was reduced from Rupees 3-12 to Rupees 3-8 a seer. This reduction appears at that time to have been judicious. At any rate, it had no injurious effect upon the cultivation, as the memorandum at foot* of the quantity of opium brought to sale in the following years will show. The large increase in the number of chests brought to sale naturally produced a considerable decrease in the price. In 1848, with an out-turn of 36,000 chests, the price obtained was 1,000 Rupees ; but in 1854, with an out-turn of 48,319 chests, the price fell to 760 Rupees a chest. To check any further extension of the poppy cultivation, it was determined, still further, to reduce the price paid to the cultivator from Rupees 3-8 to 3-4 a seer. This reduction was followed by an immediate decrease in the cultivation. The statement below†

	Total number of Chests.
1852	33,561
1853	39,463
1854	48,319
1855	53,319
	Total number of Chests.
1855	53,319
1856	41,492
1857	43,902
1858	32,686

shows that, between 1855 and 1858, the number of chests of opium sent down for sale fell off from 53,319 to 32,686, while last year's provision was only 27,000 and for the present year, there are only 21,366 chests to be brought forward for sale. This falling off was attributed to the general increase in prices which had risen 100 per cent. since 1855 as the following table shows :—

Memorandum of the average increase in the price of certain articles of consumption in the Behar Opium Agency.

Articles.	Per Rupee in 1855-56.			Per Rupee in 1858-59.		
	Mds.	*Seers.*	*Chts.*	*Mds.*	*Seers.*	*Chts*
Tobacco	0	20	0	0	10	0
Mustard	0	30	0	0	15	0
Linseed	1	0	0	0	16	0
Potatoes	2	20	0	1	10	0
Oats	1	15	0	0	25	0
Wheat	0	30	0	0	16	0
Barley	1	10	0	0	20	0
Grain	1	0	0	0	22	0
Goor	0	35	0	0	20	0

The rise from Rs. 3-4 to 3-8 a seer had no perceptible effect on the cultivation, and it was accordingly raised to Rs. 4. The report remarks—"the risk incurred by maintaining the present excessive price of opium, (caused by the supply being unequal to the demand,) of encouraging the growth of poppy in China and elsewhere, is apparent."

Salt.—For full details see page 160 of this volume. The pressure of the Mutiny led to an increase of 8 annas a maund of duty on Salt which became Rs. 3 on 21st December 1859. The effect is seen in the Government Salt Sales from January to April 1860, compared with the corresponding 4 months of the preceding year.

	Quantity—maunds.	Proceeds—Rupees.
1859 ...	1,035,756	32,18,244
1860 ...	957,668	33,52,097
	Excise Sales.	
1859 ...	2,500	6,250
1860 ...	21,900	65,700
	Imported Salt.	
1859 ...	897,801	20,42,214
1860 ...	669,209	18,26,944

A trifling excise equal to 2½ annas per maund was for the first time imposed on Arracan, with a population of 370,000. At this rate it is calculated the tax will yield Rs. 60,000, but the excise will be gradually raised to Rs. 1-4. It was resolved to add to the rate at which Government Salt was sold, consisting hitherto of only the actual cost plus the duty, interest at 6 per cent. on the capital laid out in the manufacture. This led to an increase of Rs. 2,87,000 in the year. The lottery system in the sale of salt was abolished, and all applicants were required to deposit in bank notes or post bills the full price of the salt they required. At first this disarranged the money market, but this objection was removed by an arrangement with the Bank of Bengal. The net revenue derived from Salt during the year was Rs. 1,62,40,593.

Stamps.—The gross receipts were Rs. 30,93,049, the charges 1,42,700, and the net revenue Rs. 29,50,349. In 1840-41 the net revenue was Rs. 20,72,056. The following comparative table exhibits the number of documents which, having been written on unstamped paper, were stamped under the provisions of Section 14, Regulation X. of 1829 :—

	Number of Deeds.	*Amount of Duty.*
1844-45 ...	2,566 ...	31,184 11 0
1854-55 ...	2,150 ...	31,001 2 0
1858-59 ...	1,400 ...	19,958 2 0
1859-60 ...	2,248 ...	28,545 6 0

Stationery.—

The following comparative statement exhibits the value of the articles sent out by the home authorities, and of those purchased in this country during the last two years :—

Years.	Value of the Stationery sent out from England.	Value of Stationery purchased in this country.	Total.
1858-59	2,41,359	1,71,640	4,12,999
1859 60	1,90,203	2,48,430	4,38,633

The increase of 76,790 rupees in the local purchases was chiefly attributable to the greater quantity that had to be purchased. The number of indenting officers during the year was 1,825, or 499 in excess of the number (1,326) in 1858-59; and the value of the stationery issued was 4,86,059 Rupees to 4,38,089 Rupees of the preceding year.

FINANCIAL.—

Revenue and Expenditure of the Divisions under the Lieutenant Governor of Bengal for the years 1857-58, 1858-59 *and* 1859-60.

	1857-58.	1858-59.	1859-60.
REVENUE—ORDINARY.			
Land Revenue	3,69,16,953	3,72,12,820	3,74,90,448
Excise and Stamps	57,53,229	63,88,535	70,98,281
Post Office	9,81,389	11,27,564	13,04,307
Public Works	14,43,736	15,13,875	11,96,035
Customs and Salt	2,32,52,438	2,80,05,809	3,36,12,827
Opium	5,21,19,833	4,66,51,652	4,31,14,833
Marine...	6,63,832	6,38,324	6,14,224
Miscellaneous	10,16,142	12,27,606	11,69,893
Sayer	2,97,807	3,73,279	3,47,388
	12,24,44,359	12,31,49,464	12,59,48,236
EXTRAORDINARY.			
Miscellaneous, including Public Works	9,40,500	8,46,989	7,78,755
LOCAL FUNDS, VIZ.,			
Convict Labor Fund	59,314	1,05,940	1,16,370
Miscellaneous	2,75,964	3,95,695	4,45,371
Total Funds ...	3,35,278	5,01,635	5,61,741
Grand Total ...	12,37,20,137	12,44,98,088	12,72,88,732
EXPENDITURE—ORDINARY.			
General Department	25,11,933	27,91,518	34,55,065
Post Office	10,20,917	10,28,145	13,30,437
Public Instruction	10,33,514	10,33,473	10,38,468
Pensions	18,07,825	18,12,251	15,56,393
Judicial Department	70,93,939	71,53,391	73,60,617
Revenue Department	32,40,966	31,06,546	30,84,338
Excise and Stamps	4,12,890	4,09,094	4,01,711
Customs and Salt	42,91,962	45,37,954	39,26,101
Public Works	22,35,257	37,62,652	42,32,728
Sayer	1,594	1,118	332
Miscellaneous, General	1,38,291	1,43,581	91,886
Opium	89,06,180	76,93,580	65,93,823
Marine...	37,05,809	40,67,328	42,68,397
Total Rupees ...	3,64,01,077	3,75,40,631	3,73,40,296

Expenditure of the Divisions under the Lieutenant-Governor of Bengal for the years 1857-58, 1858-59 *and* 1859-60.—*Concluded.*

	1857-58.	1858-59.	1859-60.
EXTRAORDINARY.			
Public Works	28,06,645	39,83,828	11,06,586
Miscellaneous	5,30,171	1,70,023	5,27,288
Total Extraordinary ...	33,36,816	41,58,851	16,33,874
LOCAL FUNDS, viz.,			
Convict Labor Fund	56,458	64,113	46,859
Miscellaneous	2,05,701	3,32,750	3,31,444
Total Funds ...	2,62,159	3,96,863	3,78,303
Grand Total ...	4,00,00,052	4,20,96,345	3,93,52,473
Surplus or Remainder ...	8,37,20,085	8,24,01,743	8,79,36,259

EDUCATION.—The Director of Public Instruction was aided by 5 Inspectors and 47 Deputy Inspectors.

Statistics.—There were in the Lower Provinces, 289 colleges and schools maintained by Government, attended by 18,387 scholars; and 303 aided schools, attended by 21,979 scholars, thus giving a grand total of 592 schools and 40,366 scholars. Of female schools there were in operation only 10, containing about 367 children. The number of colleges and schools under the control of, and in connection with, the late Council of Education, on the 27th January 1855, when the department was made over to the Director of Public Instruction, was 147, and the number of scholars attending them amounted to about 12,865, showing an increase in the total number of schools in operation of 445, and an increase in the total number of scholars for the year ending 30th April 1859, as compared with the year ending 31st December 1854, of 27,501. The gross annual expenditure incurred by the State, for the purposes of education in Bengal, for the year 1854-55, was Rupees 6,88,692-1-7, and for the year 1858-59, Rupees 10,32,021-5-9, showing an increase of expenditure amounting to Rupees 3,43,329-4-2.

Calcutta University.—Several changes were introduced. The most important were the establishment of a new examination in Arts, intermediate between matriculation and the final exami-

nation for the B. A. Degree; the creation of a new and lower degree, styled Licentiate, in each of the Faculties of Law and Civil Engineering; and the institution of the Degree of Doctor in the Faculty of Law. The Entrance Examinations within the short space of three years, considerably raised the standard of English school education in Bengal. Wherever their influence extended, they excited a spirit of emulation between all educational institutions, and inspired both teachers and pupils alike with a vitality and activity hitherto unknown.

For the last Entrance Examination the names of 705 candidates were enrolled, but 669 only presented themselves for examination. Of these, 243 obtained the requisite number of marks to entitle them to pass.

Passed.

Number of Candidates.		1st Division.	2nd Division.
Government Schools	490	52	123
Aided Schools	28	1	17
Independent Schools	128	7	24
School-Masters	28	4	10
Private Students	31	1	4
Total	705	65	178

Only 13 out of 50 under-graduates succeeded in passing the Bachelor of Arts examination. Tarapersaud Chattergee, one of the successful candidates, applied to be examined for Honors, and was awarded a 3rd class in mental and moral science. He is the first student in this part of India who has gained University Honors. Out of twenty-two candidates for the B. L. Degree, ten were successful. The Medical College sent up 30 students for the first examination for the degree of Licentiate in Medicine and Surgery, of whom 13 passed and 3 obtained University scholarships. The growing influence of the University is seen in the fact that the total numbers on the rolls of the 5 colleges for general education rose from 195 in March to 234 at the close of 1859. In the 44 collegiate and Zillah schools the number of pupils rose from 6,191 in 1858 to 6,628 at the close of April 1860. There were 10 schools for native females attended by 367 children.

PUBLIC WORKS—*Military.*—The principal works were the construction of a redoubt, having two batteries for heavy guns at Diamond Harbour; the commencement of cantonments for European Troops at Dehree, on the Grand Trunk Road, and their completion at Dorunda and Hazareebaugh, in the Chota Nagpore Division, and at Sinchall, near Darjeeling; besides various and extensive new works, additions and alterations in connection with the barrack quarters at Fort William, Dum-Dum, Barrackpore, Chinsurah, Berhampore, Dinapore, and Raneegunge, for the better shelter, convenience, and comfort of the European troops of all arms. The Lieutenant Governor resolved that advantage should be taken of Parisnath Hill, 54 miles from the East Indian Railway terminus at the Burrakur, as a sanatarium. Parisnath is the highest of the range of hills separating Lower Bengal from Behar, through which the Grand Trunk Road runs. It stands off from the range on its south eastern face, thus overlooking the plains between the valleys of the Damooda and Burrakur Rivers. Its summit is 4,624 feet above the sea; and the mass of the hill overhangs the Grand Trunk Road from the 189th to the 198th mile stone from Calcutta. As the eastern side is occupied by the shrines and temples of the Jains, a clearance was made on the western end. Among the chief *Revenue* works was the commencement of a spacious new opium godown on the Strand Road at Calcutta, capable of affording safe stowage for 30,000 chests of opium; a new export shed on the customs wharf at Calcutta, measuring 300 by 50 feet, and ten new temporary sheds adjoining the Custom House premises at Calcutta. An officer was appointed to prepare estimates for erecting the new General Post Office. *Roads,* (metalled) were surveyed or undertaken, to act as feeders to the Railways. The receipts from the Nuddea Rivers and Calcutta Canals were, Nuddea Rivers 1,83,858 rupees; Calcutta Canals 2,82,868 rupees—showing a decrease of 13,292 rupees on the former, and of 23,713 rupees on the latter. The latter was owing to the Circular Canal having been closed for six months during the time of its excavation and improvement. The principle adopted by the Lieutenant Governor in his expenditure on Public Works, was to spend nothing upon a great work until money became available to carry it out to completion as fast as possible, and to spend whatever can be spared upon smaller works which there will be money enough to carry out to completion in a short time, and which, whenever completed, will tell fully, each in its proper degree and in proportion to its cost, towards supplying the wants of the country.

The total expenditure was:—

Statement shewing the entire Disbursements of the Public Works Department, Lower Provinces, during 1859-60.

Departments.	Extraordinary.	Ordinary.	Sundry.	Total.
Military	10,52,633	1,87,610	24,702	12,64,945
Naval	32,386	.....	.....	32,386
Judicial	59,889	1,19,250	652	1,79,791
Revenue	1,59,522	61,102	482	2,21,106
Ecclesiastical	19,639	11,241	236	31,116
Educational	11,906	18,164	54	30,124
General	78,652	1,19,276	85,778	2,83,706
Municipal	6,553	.....	.....	6,553
Marine	6,526	16,847	3,410	26,783
Agricultural	44,200	2,03,759	1,217	2,49,176
Communication	3,59,048	4,89,292	6,191	8,54,531
Electric	3,322	2,643	.....	5,965
Industrial	.....	.....	1,824	1,824
Establishment and Travelling Allowance	.....	.....	.....	7,35,232
Stock Surplus Collected ...	.....	.....	.....	6,01,559
Total	18,34,276	12,29,184	1,24,546	45,24,797

Local Works.—Their cost was defrayed from what is called the "Amalgamated District Road Fund," consisting of the net proceeds of the ferry collections, the surplus of the tolls collected in the Nuddea Rivers and the Calcutta Canals, and the tolls at such gates as had been established on Ferry Fund Roads. An allotment of these funds is made annually to each division, according to its wants, and the Commissioner of each division is required to submit an Annual Return, showing how the funds assigned to each District in it have been expended. The approximate amount in 1858-59 was

Net collections from tolls on ferries and on district roads	Rs.	3,09,675
Ditto ditto on Nuddea Rivers and Calcutta Canals	,,	2,25,712
Total, Rupees		5,35,387

which represented the amount at the disposal of the Lieutenant Governor for 1859-60. This was divided into a *local* and a *general* fund, the former embracing the net collections from tolls at ferries and on district roads and the profits of jail manufactures, and the latter the proceeds of tolls on the Nuddea Rivers and Calcutta Canals. After making grants from the general fund to those districts where the ferry fund collections were small, there was a balance of Rs. 2,52,613, which was devoted to making new

roads as feeders in connection with the Railways; for metalling or otherwise improving existing feeders; for commencing contemplated improvements of the navigation of the Eastern canals, and for any small contingencies that might require to be provided for during the year.

Railway Department.—1. *East Indian.*—The line open at the commencement of the year, extended from Howrah to Beddia, with a branch from the Khanoo junction to Raneegunge,—in all a distance of 142 miles. A further length of 23 miles was opened to Synthia, in the South Beerbhoom District, in September, so that the open line at the end of the year extended from Howrah to Synthia, 121 miles, with the branch line to Raneegunge of 45 miles length. The section from Howrah to the Khanoo junction is a double line, and was completed as such in October. For the other length the line is single. The entire traffic on the open line, during the first half of 1859, returned a profit of 8½ per cent. per annum on the cost of construction. For the second half of 1859, the profit was 6 per cent. per annum on the cost of construction, which, however, in this half year, included the cost of doubling the line from Howrah to the Khanoo junction, and of making the single line to Synthia. The approximate cost of the open line is as follows:—

	Rupees.
75 miles of double line at Rs. 1,57,000 p. mile =	Rs. 1,17,75,000
91 miles of single line „ „ 1,20,000 p. mile =	„ 1,09,20,000
Total, Rupees ...	2,26,95,000

The number of miles run by Railway trains during the year was 6,46,988.

The number of passengers carried was:—

	No.		Rupees.
First Class	14,777	paying Rs.	60,671
Second Class	64,176	„ „	1,02,489
Third Class	13,09,761	„ „	7,09,963
Making an aggregate of Passengers carried ...	13,88,714	„ „	8,73,122

	Maunds.		Rupees.
The amount of coal carried was:—	59,16,702	paying Rs.	10,01,821
And of ordinary goods ...	22,01,402	„ „	4,80,782
So that the total merchandize traffic aggregated	81,18,104	„ „	14,82,603

The gross earnings of the open Railway, including profits on every account, amounted to	... Rs.	25,78,251
The expenses of working the Railway amounted to	„	11,74,243
Leaving for the net earnings or profits	... „	14,04,008

These returns are for the calendar year 1859. There were 20 accidents during the year of which 4 happened to passengers and one was fatal. Extension lines through the colliery districts 22 miles to the Burrakur and 7 to the Singarun, were sanctioned. The project of bridging the Hooghly at Calcutta is "finally dropped." The proposition to construct a bridge at or near to Fulta Ghaut, to connect the East Indian and the Eastern Bengal Railways, was generally approved of by the Governor-General in Council.

2. *The Eastern Bengal Railway* is 109½ miles long. It terminates at Kooshtee, on the Ganges, opposite Pubna, and starts from a point just without the eastern boundary of Calcutta, in the suburb of Sealdah. The actual work of constructing the line was commenced in May 1859, on the 10th of which month the first portion of land was made over to the Company. The line was to be finished by 30th April 1861, but there was delay in making over the land. About 18 per cent. of the earth-work was thrown up in 1859-60. There will be a branch line to the Hooghly at Chitpore which will afford the means of uninterrupted conveyance to the port of Mutlah for heavy country produce landed from boats on the bank of the river. The Railway Contract provides for an extension to Dacca.

3. The *Calcutta and South Eastern Railway* was commenced in 1859-60. The line crosses the low flat alluvial formation of the Gangetic Delta, where it is well within the influence of the tides, and has been projected for the purpose of connecting Calcutta with the new Port of the Mutlah River. It will be about 29 miles long, and the estimated capital to which the guarantee of 5 per cent. at present extends, is only £250,000. The land for 18 miles out of the 29 has been made over to the Railway Company. The earth work formation of this line was commenced in October 1859, and has been nearly two-thirds completed. The brick-work has been commenced, and good progress made in the preparation of materials. The permanent way was laid for the first 3 miles out of Sealdah. A plan for connecting the station with the commercial parts of

Calcutta and the Hooghly River bank by horsed tram-ways, was brought forward.

MARINE.—There were 136 pilots on the effective list and 11 on leave, or a total of 147. There were 22 on the free list. The cost to Government of maintaining the pilot service amounted, during the year, to 8,26,522 rupees. The receipts came to 5,39,909 rupees, including the subscriptions of officers to the Pension Fund—the excess of expenditure being 2,86,613 rupees, compared with an excess last year of 1,73,970 rupees. 15 vessels grounded in the Hooghly river compared with 45 cases in the previous year. The total amount received was 1,42,762 rupees compared with 1,69,808 rupees of the previous year, showing a decrease to the extent of 27,046 rupees, owing to a decrease in tonnage. The receipts of the Marine Department were 20,23,931 rupees, while the expenditure amounted to 33,08,275 rupees—the excess of expenditure over receipts being 12,84,344 rupees. The difference in excess between the total amount of expenditure in 1859-60 and that of the previous year, was 5,93,373 rupees.

MEDICAL.—There are 5 public *Lunatic Asylums* in Bengal. At the *Bhowanipore* hospital, for Europeans and East Indians, the number treated during 1859 was 144, being about 50 per cent. above the cases of the preceding year. Of these 25 patients were cured and discharged, 3 died, 50 were sent to England, leaving 66 still under treatment. The number of native insanes treated in the *Dullunda* asylum, also at the Presidency, during 1859, amounted to 470. The cures effected are shown to have been 9·14 per cent. The cures with the cases in which the patients were sufficiently improved to be transferred to their friends, amounted to 24·68 per cent., and the mortality to 17·44 per cent. The abuse of spirituous liquors and narcotics appears to be the chief cause of insanity among the natives. In the *Patna* native lunatic asylum there were only 6 deaths to 171 treated. The number treated in the *Dacca* native asylum was 274, of whom 51 were cured and only 14 died. In the *Moorshedabad* asylum 34 died out of 114 treated. There were 18,597 out-door dispensary patients and 528 in-door patients treated in the *Calcutta Ophthalmic Hospital* at an expense of Rs. 16,849. The numbers treated in all the charitable hospitals and dispensaries in Bengal during the twelve months ending June 1860 and the cost, were as follows:—

Dispensaries.	Total number of patients treated.	Total expenditure.		
		Rs.	A.	P.
Akyab General and Seamen's Hospital ...	2,177	5,388	0	5
Allipore	5,113	2,304	15	9
Balasore	909	1,034	1	2
Baraset	7,106	724	1	6
Bancoorah	1,195	1,135	13	3
Baulcah	2,689	1,115	2	11¾
Beerbhoom	789	270	5	0
Bhudruck	1,052	351	1	9
Bhowanipore	8,217	3,920	8	3
Bhaugulpore	2,244	430	6	8
Bograh	1,494	468	13	6
Berhampore	6,761	4,270	4	3½
Buddibatty	1,999	795	0	6
Burrisaul	3,101	1,148	13	7
Burdwan	3 352	913	12	3
Chittagong	6,982	2,509	4	6
Cuttack	2,769	4,432	9	1¼
Dacca Mitford Hospital	13,013	9,228	0	4½
Dwarbassiney	1,881	750	10	7
Gowhatty	1,865	463	0	10
Gowalparrah	864	856	10	9¼
Gyah	539	3,503	1	0
Howrah	6,043	22,710	12	2
Hooghly	6,433	6,034	2	3
Jessore	2,625	1.322	15	4¼
Kishnaghur	4,262	3,655	11	0
Midnapore	5,089	1,847	3	1½
Monghyr	3,316	2,279	0	7
Mozufferpore	14,215	1,259	0	1
Mogoorah	841	965	8	1
Moteeharry	6,820	271	12	6
Moorshedabad	7,662	3,663	1	5
Malnath	2,392			
Mymensing	1,917	548	3	1
Nattore	2,324	1,177	8	0
Ootterparrah	3,303	1,656	7	0
Patna	13,455	5,931	11	3½
Pooree	2,755	2,446	15	5
Pubnah	919	791	12	9
Purneah	1,577	535	3	1
Rungpore	2,462	697	13	2
Sarun	2,599	795	4	8
Serampore	5,560	1,830	11	8
Serajgunge	1,949	937	15	4
Sukea's Street (in Calcutta)	6,696	4,995	10	10
Tipperah	2,751	1,043	7	10
Tumlook	3,449	588	14	6

In the *Calcutta Medical College Hospital* the following were admitted.

In 1856 there were 7,095 patients.
„ 1858 „ „ 4,514 „
„ 1859 „ „ 4,616 „

Of the 4,616 patients treated during the year, 2,282 were Christians, and 2,334 were natives. Among the Christians 222 died, being at the rate of 9·64 of deaths on the total number treated. Among the natives the deaths amounted to 645, being at the rate of 27·61 per cent., and the mortality goes on progressively increasing. The total number of persons who received assistance in the male and female out-door dispensaries of the hospital, during the year, was about 17,000.

EMIGRATION.—The total number of coolies who emigrated during the year, amounted to 23,312 statute adults. Of these 15,980, more than two-thirds of the entire number, were received by Mauritius, and the rest in the following proportions were divided among the other colonies:—

Demerara	...	...	...	4,394
Trinidad	...	...	...	1,618
St. Lucia	...	...	...	670
Jamaica	...	...	...	650

SURVEYS.—From 1st October 1859 to 30th September 1860, the Professional Branch surveyed 25 pergunnahs completely and portions of 24 containing 8,289 hulkas or village circuits, of an average size of 163,769 acres, and an approximate area of 8,365 miles. The Non-professional branch demarcated 8,904 villages, of a probable area of 5,717 square miles; made over 10,132 Thakbust maps to the Surveyor; decided 1,485 boundary disputes; disposed of 15,284 other cases and made over 118 pergunnah registers as completed. The total estimated expenditure of the season for the Non-professional work was rupees 2,18,503-1-4, or an average of about rupees 38-3-6 per square mile.

Tea Cultivation.—Throughout the districts of the North East Frontier Agency there were 7,599 acres of land, in a more or less forward state, under cultivation for tea; the produce of which, for the last year, was 1,205,689 lbs. It is stated that an acre cultivated will give something more than six maunds of tea, and if the land now under cultivation was only giving the low average of five maunds per acre, the produce would be upwards of three millions of pounds. In Cachar tea cultivation was commenced only about 4 years ago, yet last year's crop gave about 1,000 maunds, and a portion of it had found its way to the London market, where it realized 2*s.* 2-1-10th pence per lb., and was pronounced quite as good as, if not superior to, the teas grown in Assam. Several hundreds of acres were under cultivation at Darjeeling.

Suppression of the Churruck Poojah.—The Calcutta Missionary Conference petitioned the Bengal authorities in 1856, and

again the Legislative Council, to prohibit hook-swinging at the festival of the Churruck Poojah. Her Majesty's Government were of opinion that every opportunity should be taken of discountenancing the practice, and they suggested the propriety of inserting, in all leases for Government lands, a provision hostile to the celebration of the festival; of enlisting in the same direction the sympathies of the leading members of the native community, and of quietly making known the disapprobation with which such spectacles were regarded by the Government. The Lieutenant Governor called on the Commissioners of Divisions to furnish reports on the subject. From these it appeared that it is confined to Bengal proper and Orissa. Where the practice of hook-swinging existed as a long established custom, the local authorities were directed, by using their personal influence, and by obtaining the co-operation of the zemindars, to induce the people voluntarily to abandon the practice. On the other hand, where churruck-swinging was not an established custom, but a mere occasional exhibition, the Magistrates were authorized to prohibit its celebration as a local measure of police for the preservation of order and decency. The practice is gradually dying out.

The Sonthal Pergunnahs greatly improved under the able administration of Mr. Yule, the Commissioner. A fair rice-crop enriched the agricultural portion of the population, and the great demand for labor which the railway created, afforded a remunerative occupation for those not engaged in agricultural pursuits. The people seemed generally contented and happy. The system of bond-labour fully discovered in 1858, was broken up. The bondsmen were of two descriptions, known by the names of Kameotee and Hurwahee bondsmen. A Kameotee bondsman is one who, in consideration of a sum of money, binds himself and his heirs to serve the giver of the loan until the money is repaid with interest. The Hurwahee bondsman similarly binds himself to work for the money-lender whenever his services may be required. The Kameotee bondsman generally lives with the bond-holder, and is, in fact, his domestic servant. The Hurwahee bondsman, on the contrary, is a sort of out-door laborer, and is only employed when his services are required. The bond-holders for the most part consist of shop-keepers, merchants, and chowdrees, who find it profitable to take land and cultivate it by slave labor.

Political.—The *Nawab Nazim of Bengal* was rewarded for his valuable services during the Sonthal Rebellion in 1855 and the Mutiny in 1857, by being allowed a salute of nineteen guns on his arrival at, and departure from, the Presidency. The

Governor General also cancelled so much of the orders of 1854, as required that when the Nawab left Moorshedabad, his camp should be accompanied by a responsible Police Officer on the part of Government; and it was further directed that the practice under which, previous to 1854, the expense of His Highness's hunting excursions was defrayed from the Nizamut Fund, should be revived. The title of Rajah Bahadoor was also conferred upon the Nawab's Dewan. The petty *Hill State of Nungklow* in Upper Assam was restored to native rule, and Beer Sing elected Rajah by the chief men of the district.

The people and Government of *Bhootan*, in 1856 and subsequently, carried off several of our subjects and would not release them. At last, after four years of fruitless forbearance, the Government was compelled to carry into execution a threat, long since made, of taking possession of that portion of the Bhooteah Territory which is situated on the west bank of the Teesta, within the District of Rungpore. This tract had been given up to the Bhooteahs in 1779, by the orders of Mr. Hastings, from political considerations and a desire to avoid all misunderstandings with the Bhootan Government. In 1842 it again came into our possession, subject to a yearly rental of 2,000 Rupees, which we have regularly paid to the Bhootan Government. This annual payment will now no longer be made, but it is still doubtful whether this single measure of retributive justice will bring the Bhooteahs to their senses. At the beginning of 1860 the *Kookees*, hill tribes who dwell in the district of Chittagong, between the Kurnafullee and the Fenny, left their mountain fastnesses and attacked some hill villages which are under our protection, near the source of the Fenny River. Following the course of the stream, they attacked and destroyed the village of Ramghur: and from thence, inclining to the north-west, they made a sudden descent on the plains of Tipperah. 187 persons were killed in the plains above and 100 carried off as slaves. The outrages committed in the hills were equally atrocious, and it is believed that 300 persons in all were killed, and 200 more carried away into captivity. So great was the alarm caused by this inroad, that whole villages along the frontier were deserted; and even in the town of Comillah serious apprehensions of an attack were for a time entertained. But the savages had no intention to face the attack of an organised body of troops. Before the military police had arrived upon the spot, the marauders had retired to their hills, and the season of the year rendered it inexpedient to pursue them. The punishment of this barbarous tribe was of necessity deferred until the next cold season. This was followed by a rising among the *Cossiahs of the Jynteah Hills* to the north

of the District of Sylhet, and adjoining Cachar on the west. This country came into our possession in 1835, when the Rajah Raj Indra Sing voluntarily resigned his authority over an unprofitable tract, for a pension of 500 Rupees a month. In 1858 it was resolved to impose a house tax on the country. The people resisted, were punished and the tax was paid without demur.

Indigo Disturbances.—Disputes connected with the indigo cultivation in Bengal had long been a subject of anxiety to the Government. In the year 1856 reports were called for from the several Divisional Commissioners, as to how the indigo sowing season of that year had passed off in respect of such disputes; but nothing of importance calling for the immediate interference of the Government, or of the legislature, was then brought to notice. In April 1859, a planter in the District of Baraset complained of a general disinclination among the ryots of his concern to cultivate indigo. This feeling he attributed not to the unremunerative price paid for the crops, but to the conduct of the District Magistrate, which he averred was openly hostile to the interests of indigo planting. On enquiry, however, it appeared that the conduct of the Magistrate complained against had been perfectly legal and impartial.

About the same time a difference of opinion arose between the same Magistrate (The Honorable Mr. A. Eden) and Mr. A. Grote, the Commissioner of the Division, on the question of the general interference of the Police in cases of disputes arising from planters sowing or attempting to sow the land of the ryots with indigo against their will, on the plea of a contract. An application had been made to the Magistrate by certain ryots for protection against a planter, who, they said, was going forcibly to plough up their lands, and to sow them with indigo. The Magistrate had ordered the Police to proceed to the spot, instructing them, if the land appeared to be really the property of the ryots, not to allow any one to interfere with it. Mr. Grote objected to this order, on the ground, chiefly, that it imposed upon the Darogah undue responsibility. This difference of opinion was referred for the decision of Government, as a general question, respecting the employment of the Police. The Lieutenant Governor gave it as his opinion, that Mr. Eden's principle stated above was a true exposition of the law as it stood, according to which the Police were bound to protect persons and property from unlawful violence, and to abstain from entering into disputes respecting alleged contract, which are only cognizable by the Civil Courts. In the case in question no claim was made to the ownership or possession of the land entered upon, which were confessedly the ryots'.

In the month of August the Lieutentant Governor proceeded on a tour by water through a part of the Bengal Districts. In the course of this tour he received petitions from numerous ryots of the Nuddea District, complaining that in indigo cases they did not obtain due protection and redress from the Magistrate; that ryots obnoxious to the factory were frequently kidnapped, and that other acts of great violence were committed with impunity in open day. These complaints met with the consideration their importance deserved. It appeared, after due enquiry, that, on the whole, the petitioners have not always received that redress from the law, and that practical protection from the police to which they were entitled. Some of the cases, though many months old, had not been disposed of, and one case, in which a ryot, after having been wounded in an affray in which the factory people were the aggressors, was carried off from factory to factory, and undoubtedly died in durance from the effect of his wounds, and was most weakly and improperly treated at the commencement. The local authorities were admonished that such remissness on their part could not fail to produce in the minds of the natives a suspicion of partiality. They were directed vigorously to prosecute all pending cases, and to bring them to such a termination as might satisfy the ends of justice.

As the year advanced complaints on both sides began to thicken. In November 1859 an influential planter in the Nuddea District represented to Government that a spirit of opposition to the factory was manifesting itself in the conduct and action of his ryots, and that to encourage this opposition a rumour had been sedulously circulated that the Government was opposed to indigo planting. On the other hand numerous petitions were received from the ryots, complaining of cruel oppressions practised upon them by the planters, and of the compulsory cultivation of a crop, which they represented, not only as unprofitable, but as entailing upon them a harassing, vexatious, and distasteful interference.

On the 10th of February 1860, a representation was submitted by the Commissioner of Nuddea from another planter in the Nuddea District, alleging that mischief had been done in the indigo factories under his management, by the issue, from the Deputy Magistrate's Court at Kalarooah, in the District of Baraset, of a perwannah, on the subject of the interference of the Police in indigo disputes. This perwannah was said to be based on the correspondence of 1859, of which mention has been made before. It appeared on enquiry that, although the publication of the perwannah by the Deputy Magistrate was

certainly not a discreet measure, there was no proof that it had done any harm anywhere, whilst all circumstances of time and place were against the supposition of its having had any influence in Nuddea, where no one probably ever knew of it.

To petitions from ryots complaining of indigo cultivation, the Lieutenant Governor's reply was, that ryots who had contracted to cultivate indigo must be expected to be forced to fulfil their obligations; but no ryot was forced to contract to cultivate who did not choose to do so.

In March, when the Lieutenant Governor returned to the Presidency from his tour in Behar, his attention was directed to reports regarding misunderstandings between the planters and ryots, which were represented as likely to lead to serious consequences. A very general indisposition on the part of the ryots to cultivate indigo during the ensuing season had been manifested. The same subject was pressed upon the attention of the Lieutenant Governor by a deputation from the Indigo Planters' Association, who had an interview with him, and who laid before him a petition from their main body.

The Association represented the state of feeling manifested by the ryots, attributing it in part to a mistaken belief as to the views of Government in regard to the cultivation of indigo. To protect their interest, thus endangered, the Association petitioned for two things. *First*, that the Government would take steps to remove the mistaken impression stated to exist amongst the ryots. *Secondly*, that a special law should be enacted to make the breach of an agreement to cultivate indigo punishable summarily by a Magistrate. To the first prayer the Lieutenant Governor at once acceded. A notification was issued, having for its object the correction of any erroneous ideas as to the wishes and policy of the Government, and impressing upon ryots the necessity of fulfilling existing engagements.

The second prayer involved questions of a very serious nature. On the one hand there was reason for believing that a great commercial calamity was threatened by the feeling which had suddenly manifested itself; on the other, there was the fact that laws and courts already existed to redress any grievances proceeding from breach of contract or other causes. After due consideration, the Lieutenant Governor came to the conclusion that a special law of limited application as to time was called for. The danger was a great, a sudden, and a pressing one. An exceptional evil required an exceptional remedy. The regular procedure was inadequate to the occasion and to the dangers springing from a combination among a mass of ryots. In

the interest of both parties it was desirable to ensure time for calm consideration and mutual concessions, to enforce, by summary process, for the approaching season, the fulfilment of lawful contracts duly entered into, on which actual cash advances had been received, and thereby to save from sudden ruin a great commercial interest. Acting upon these considerations, the Lieutenant Governor recommended to the Legislature the passing of a law of the nature above referred to, which should extend to the current season only, and which should be accompanied by a promise of full and thorough enquiry into past practice, and thereafter of a well considered law, which shall afford practically, equal, and complete protection to the ryot, as well as to the planter. Accordingly Act XI. of 1860 was passed.

In the meantime the excitement against the cultivation of indigo had become so strong as to lead to acts of violence in some of the Indigo Districts. The first disturbances occurred in the Aurungabad Sub-Division, where the Ancoorah factory, belonging to Mr. D. Andrews, and the factory at Bunnyagaon, belonging to Mr. Lyon, were attacked by a mob of lattials and ryots. In the District of Maldah the Buckrabad factory, also belonging to Mr. Andrews, was similarly attacked and plundered. It appeared upon enquiry that the ryots in this part of the country had been goaded into rising by the long continued oppressions and extortions of the factory servants. While, therefore, the rioters, who were concerned in the above disturbances, were promptly punished, stringent measures were ordered to be taken to bring to justice those whose oppressive acts lay at the root of all this evil.

In the Districts of Nuddea and Jessore, although the excitement was as strong as any where else, no disturbances of a serious nature occurred. In the District of Pubna, a Deputy Magistrate, with a small party of the military police was (partly in consequence of his own injudicious conduct) repulsed by a body of armed lattials, who had assembled to resist the cultivation of indigo. On receipt of intelligence of the first of these occurrences the Government at once acted with promptness and vigor. Troops were rapidly collected in the Districts where the excitement prevailed, and by a judicious display of force in suitable places the ryots were overawed, and all tendency to any violent out-break was suppressed. The best available Magistrates were placed over the Indigo Districts, and the staff of magisterial Officers in those Districts was considerably strengthened. On the passing of the new Indigo Act the Lieutenant Governor issued certain instructions to the Local Magistrates, enjoining them carefully and patiently to sift the evidence and

to decide in the truest spirit of equity all cases instituted under it. Subsequent results have proved that these cautions were needed. Legal opinion on several doubtful points connected with the practical operation of the law was obtained, and circulated for the information and guidance of all Officers engaged in carrying it out. The number of suits under the Act in the Nuddea District increased so largely towards the end of May, as to threaten to stop all the regular magisterial and revenue work of the District. Upon an application from the Commissioner, two Principal Sudder Ameens, with magisterial powers, were therefore specially deputed to Nuddea for the trial of the breach of contract cases, the magisterial officers reverting to their own proper work, including the trial of cases under the penal clauses of the Act.

Except in Nuddea the Indigo Act was not worked to any very great extent. And, notwithstanding the great excitement displayed at the commencement of the season in three out of the four excited Districts, the usual or nearly the usual quantity of indigo was sown. In the month of June some apprehensions of a breach of the peace were entertained in the District of Pubna, in consequence of certain differences between the ryots and Planters of two of the largest concerns in that District; but these differences were amicably adjusted by the exertions of the district authorities. Difficulties had also been experienced by planters in the District of Jessore in obtaining delivery of the ripe indigo plant; but these were met by some judicious concessions on their own part. Meanwhile the proposed Commission of Enquiry was appointed.

The Lieutenant Governor's Tours.—In August and September a visit was paid by water to Kishnaghur, Berhampore, Moorshedabad, Rajmahal, Bhaugulpore, Monghyr, Rampore Bauleah, Kooshtea, Pubna, Fureedpore, Dacca, Burrisal and Koolna. The great Railway works were inspected. In January, February and March 1860 the Lieutenant Governor visited Parisnath Hill, Hazareebagh, Ranchee, where he held a durbar, Gya, Rhotas, Saseeram, Jugdespore, Arrah, Dinapore, and Patna, halting on the way at Koelwar, where the Railway bridge over the Soane was inspected. At Patna a durbar was held, at which all the native gentry of the neighbourhood presented themselves. Throughout his whole march in the Province of Behar, including the District of Shahabad, which had been so long and so lately disturbed, the Lieutenant Governor was much struck with the very marked respect which the whole demeanour of the people showed to the British Government. Besides the above, which were the two principal tours of the year, the Lieutenant

Governor made two short trips by dâk into the interior, one to Jessore, and the other to Sooree and Nulhattee in Beerbhoom.

ADMINISTRATION OF THE TENASSERIM AND MARTABAN PROVINCES.

1859-60.

JUDICIAL—*Civil Justice.*—There was an increase of 1,872 regular and miscellaneous suits in the year 1859, and a decrease of 75 appeals, the total number of cases before all the Courts being 21,538. The diminution in the number of appeals is attributed to the improvement of the Superior Courts. There were for trial before all the Courts a total of 21,538 cases. Of these 20,554 were regular and miscellaneous suits, and 984 appeals: 20,840 cases were disposed of, the regular and miscellaneous suits numbering 19,945, the appeals 895. Of the 19,945 regular and miscellaneous suits disposed of during the year, 895 or about 4½ per cent. were appealed, a ratio of ½ per cent. under that of the previous year. The average duration of appeals before the Commissioner's Court was 1 month and 20 days.

Criminal Justice.—The total number of persons arrested in 1859 was 6,584 showing an increase of 603 on the previous year; 4,431 were convicted, 18 died or escaped; the average percentage of persons convicted to persons tried was 68. The appeals from the several Magistrates to the Commissioner's Court numbered 32; 17 were confirmed and 15 reversed. Before the Sessions Court there were 51 persons for trial; 13 were acquitted, 1 died, 4 remained pending trial, 33 were convicted and sentenced:—

To death	...	...	...	...	1	Person.
„ imprisonment for life			...	...	16	„
„	„	„	9 years	...	1	„
„	„	„	7 „	...	2	„
„	„	„	5 „	...	1	„
„	„	„	3 „	...	7	„
„	„	„	1 „	...	5	„

The Magistrate recorded the proceedings in English in his own handwriting.

Police.—The total number of this force was 1,439 at a cost of 2,24,424 Rupees for the year, an increase in both men and

money when compared with last year, owing to certain functionaries having been omitted from former returns. The inhabitants of Moulmein, Tavoy and Mergui paid by a house assessment Rs. 36,852 per annum for the Town Police, and as various reductions were in contemplation, the annual cost to the State is estimated at 1,40,000 Rupees. The number of crimes committed during the year was 4,089, of which the large number of 3,659, or 89 per cent., were brought to trial. There was a trifling increase in the percentage in 1859 over the crime of the previous year:—

Years.	Total of heinous crimes ascertained to have been committed.	Total Population.	Proportion of heinous crime to Population.
1858 ...	781	3,32,046	1 to 425
1859 ...	814	3,39,264	1 to 416

Moulmein was very free from offences against property and not one dacoity occurred there. The value of property stolen is computed at Rs. 58,379-7-8, of which sum Rs. 159-11-4, or about 27 per cent., were recovered. This result is not so favorable as the previous year, when 30 per cent. of stolen property was recovered. During the year 6,518 persons were brought to trial on criminal charges, and of this number 4,453 were convicted against 6,518 tried.

Jails.—The daily average number of prisoners and cost per head was as follows:—

	Number.	*Cost.*
Amherst	233	52 1 11
Moulmein	1,269	73 9 4
Tavoy	343	61 11 0
Mergui	233	65 6 4
Martaban Province	76	104 2 7

There were only 20 deaths, 18 from small pox and two from Cholera.

The total profit, after paying for maintenance and all other charges, of convicts in Amherst was Rs. 33,478-9-6.

Revenue.—The proportion of land to total revenue was, unlike the provinces of Hindostan, only 30 per cent. The gross revenue of the Tenasserim and Martaban Provinces, for the year

aggregated Rupees 15,34,772-4-11, and exceeded that of the preceding year by a sum of Rupees 59,042-15-10. The proportion of the total revenue to population was about 4½ Rupees per head per annum. There was a decrease of 3,213 Rupees in the Capitation Tax compared with 1858, the total amounting only to 1,62,333 Rupees; this was owing to the reduced rate of 2 Rupees on cultivators of four acres and upwards. The Capitation Tax is levied on all males between the ages of 18 and 60, at rates varying from 5 Rupees to 1 Rupee per annum, the maximum rate being for non-cultivators, and then at decreasing rates, according to the amount of land cultivated. The collections from Fisheries amounted to Rupees 59,460-2-0, and exceed those of the previous year by Rupees 12,057-2-0. The revenue from Timber amounted to Rupees 164,301-1-5 showing a decrease from 1856 of Rupees 11,513. The excise collections were as follows:—

Opium and its preparations	Rs.	1,33,787	0	0
Spirituous liquors	,,	1,55,068	8	8
Salt	,,	20,419	12	0
Total Rupees		3,09,275	4	8

This shows an increase of Rupees 66,163 6-10 on those of 1858. There was an increase in Customs of Rupees 47,426 5-9. The imports consisted principally of thread, cotton, and silk piece goods, woollens, malt, wines and spirits, together with sundries and private treasure; and the exports comprised timber, grain, cutch, sticlac, hides, horns, and sundries. Marine Receipts fell off to the large sum of Rupees 8,336-5-6 and the Judicial receipts amounted to only Rupees 1,17,340-13-6 or less by Rupees 40,297-8-6 than in 1858. In miscellaneous receipts, which aggregated Rupees 73,591-7-11, there was a falling off of Rupees 33,391-13-9.

EDUCATION.—The fees collected at the only Government School in the provinces amounted to 494 Rupees, the number of pupils being 47. English is taught at all the private schools of which there are 16 belonging to various Missionary Societies. In regard to Indigenous Schools, every Phoongee, Kioung or Monastery of Boodhist Priests is a school, and throughout these Provinces they are more than needfully numerous. A great desire prevails among the Burmese to learn English.

Post Office.—The postage collected on bearing covers and parcels in the Moulmein Post Office was as follows:—

YEARS.	Letter Postage.	Parcel Postage.	Total.
1858-59 ...	2,013 5 6	519 2 0	2,532 7 6
1859-60 ...	1,498 4 6	272 15 0	1,771 3 6
Decrease	515 1 0	246 3 0	761 4 0

Miscellaneous.—The population of the Tenasserim and Martaban Provinces, for the past year, numbered 339,264 souls, giving an increase over that of the previous year of 7,218 souls, or 2,127 per cent. There were 475 Christian immigrants and 10,622 natives, while of emigrants there were only 238 Christians and 6,491 Natives, showing a surplus in immigration of 4,568 souls.

Agriculture.—In all the Districts the area of land under cultivation, of every description, was 269,338 acres, of which 195,533 was under paddy cultivation. A Burman will readily consume his full seer of rice a day, his wife less, his children in proportion according to their age; but, allowing only half a seer per diem per head of the population, and taking that in round numbers at 340,000 souls, we shall have a local annual consumption of 57,083 tons of cleaned rice (27 maunds to the ton,) to this must be added 20,000 tons, the quantity annually available for exportation—making in all 77,083 tons of cleaned rice, equivalent to 154,166 tons of paddy, on 195,533 acres, giving an average yield of 15 cwt. 3 qrs. 2 lbs., or say, 31 bushels an acre; the value of the 154,166 tons of paddy, at 50 Rupees a hundred baskets, amounts to 30,83,320 Rupees, and the amount of paddy land-tax being 3,57,863 Rupees, it follows that the proportion of tax on gross produce is scarcely more than one-ninth. An experiment was made in working the Martaban, Upper Salween and Thoungyeen Forests by the issue of annual permits, and promised well.

Survey.—The Survey was carried on with a small establishment costing only 550 Rupees. During the past year it was engaged in surveying the tract of country included between the waters of the Going and Salween, in prosecution of a general survey of Province Amherst. It was also frequently employed in occasional or special surveys of independent tracts for revenue or police purposes.

ADMINISTRATION OF MYSORE.

1859-60.

On the 17th of July 1860, Sir Mark Cubbon, the late Commissioner of Mysore, submitted his report on the administration of that province for 1859-60.

Judicial—*Civil Justice.*—The number of original suits instituted was 10,287, or including those on the file from the previous year 11,368, of which only 540 remained pending on 30th April 1860. The proportion of decisions in favour of plaintiff was 83·1 against 84·1 in 1858-59. About 94 per cent. of the suits were for personal property, of which 3,818, being for sums under 20 Rs., were summarily disposed of by the amildars, and 470 by the higher courts. The value of the property litigated was Rs. 12,61,392, an average of Rs. 101 on each suit. About 40 per cent. of this was disallowed. The appeals numbered 1,192 out of 7,689 open to appeal. Only four prisoners remained in the civil jails at the close of the year.

Criminal Justice.—The number of cases, including arrears, was 15,170, of which 15,076 were disposed of. The number of prisoners brought to trial was 29,888, of whom 62 per cent., or 18,573 were convicted. There were 490 crimes against the person; 3,417 crimes against property; 678 miscellaneous offences; and 10,585 petty cases. Fifty cases were for murder with and without robbery, and 11 for manslaughter. The prisoners in all the manslaughter cases were convicted and in 22 of those for murder. The proportion of crime to the population was 3 per 1,000; and of litigation 3 pice per head. The mortality in the jails was 17 per cent., while in the road gangs it was barely 1 per cent. This was owing to the fact that the more healthy and robust only were selected for out-door labour, and the sickly and infirm retained within. The average cost of each convict was Rs. 4-2-6 per month, and the estimated value of his labour 3 rupees.

There were 297 cases of suicide, 1,234 of accidental death, and 51 of death from wild beasts. In the *Cantonment Police Court* the civil cases decided amounted to 1,636. The criminal cases were 2,907 in number, involving 4,752 persons, of whom 3,110 were convicted.

Revenue.—The condition of the people in general was exceedingly prosperous. The revenue was easily collected. Prices rose in consequence of the deficiency in the rains of the North East monsoon, but wages rose in proportion. The gross revenue

was Rs. 1,01,25,260-5-9, of which a sum of Rs. 2,47,836-6-9 was repaid by the Madras Government on account of batta to the irregulars of Mysore employed beyond the frontier during the disturbances, leaving a net revenue of Rs. 98,77,423-15, the highest ever collected in Mysore. There was an improvement under every head except the excise on pepper. But 9-16ths of the whole increase was derived from the cultivation of new lands on battayee tenure or division of crop, an ancient system, to which the people are greatly attached.

Customs.—The customs (or sayer) revenue amounted to Rs. 9,64,243. Twenty-five articles are liable to duty, in the form of an excise. Of these betel-nut, coffee, pepper, cardamoms and tobacco pay a certain rate per maund of 28 pounds. The others pay an *ad valorem* duty.

Abkarry.—The revenue from this source amounted to Rs. 9,33,382, being an increase of Rs. 87,000.

Stamps.—The revenue was only Rs. 7,686.

Opium.—The crop was valued at Rs. 1,74,789, paying a duty of Rs. 13,102. The market rates showed no change.

Miscellaneous Revenue.—The total amount realised under this head was Rs. 6,46,455. It includes a number of petty items which bring in only a trifling revenue, and may be considered as nearly the last relic of the indiscriminate and capricious taxation of former times; their abolition was under consideration. The "extra revenue," including various items such as the proceeds of Government sandal-wood, teak, black-wood, &c., amounted to Rs. 8,04,373.

The subsidy of 25 lacs, including 50,000 rupees rent for the unprofitable island of Seringapatam, was regularly paid, as was also the Rajah's stipend of Rs. 3,50,000, and the fifth share of the net revenue Rs. 11,65,417, making his income altogether Rs. 15,15,417. A surplus of 15½ lacs remained for the improvement of the country.

EDUCATION.—No new schools were opened; but the existing ones were improved. The number of pupils at the Bangalore High School was 234 and the average daily attendance 216. The Anglo-Canarese schools at Simogah and Toomkoor were tolerably well attended. In the Government schools, which prepare for the University of Madras, there were 582 pupils, and in other schools 425—total 1,007—of whom 605 were Hindoos, 66 Mahomedans, and 336 of other castes. Nearly 800 were learning English.

PUBLIC WORKS.—No new roads were constructed. The Toonga bridge was completed, and the Budra bridge nearly so. The Railway line from Vaniembady to Bangalore was marked out.

The land required by the Company was made over to the appointed agents. All classes, more especially natives, looked forward to the completion of the work with a feeling bordering on excitement. The total expenditure for Public Works was Rs. 7,82,760.

Military.—The whole of the detachment of Mysore Horse employed beyond the Frontier had returned. This body numbered 2,397, and the Infantry or Barr 2,151.

Population.—According to the annual census returns the population was computed at 3,821,864.

Mining.—The quantity of iron and steel produced was 100,311 maunds, of which 21,030 maunds of iron and 1,883 maunds of steel were exported to Her Majesty's territories.

Vaccination.—The number of persons vaccinated was 94,463, being a decrease of 500.

Hospitals.—The number of patients treated in Bangalore was 13,257, and in the districts 6,760.

ADMINISTRATION OF COORG.

1859-60.

On the 7th of June 1860 Captain H. M. Eliott, Superintendent of Coorg, submits his report on the administration of the Coorg Territories for the year 1859-60.

Finance.—The total revenue was Rs. 2,64,196-10-3, and the expenditure Rs. 1,06,745-15-1, leaving a surplus of Rs. 1,57,450-11-2. The income showed an increase of Rs. 12,000, and the expenditure a decrease of Rs. 13,500 as compared with the previous year.

Land.—The total revenue was Rs. 1,50,318, showing an increase of Rs. 4,368, attributable chiefly to extra cultivation.

Excise and Stamps.—Abkarry and other rent of farms yielded Rs. 35,687, being an increase of Rs. 3,421. There was no revenue from stamps as they had not yet been introduced.

Miscellaneous Revenue.—This amounted to Rs. 73,998 of which coffee formed the largest item. The increase was Rs. 6,022.

Coffee.—The revenue derived from coffee amounted to Rs. 27,941 being an increase of Rs. 11,226 over the previous year. Of this sum Rs. 25,997 was paid by natives. The mode of levying the tax was highly appreciated by the natives.

Cardamoms.—The revenue was Rs. 27,147, showing an increase of Rs. 700.

Mohaturpha.—The revenue was Rs. 11,501, being an increase of Rs. 546.

Judicial.—During the year under review 1,283 original suits were instituted; 1,285 were disposed of and 43 remained on hand. The value of property litigated was Rs. 67,792, of which the sum of Rs. 51,900 was decreed to be due. Of the appeals 299 were disposed of and 21 were depending on 1st May 1860. Two murders, 4 highway robberies, and 1 poisoning occurred. The estimated amount of property stolen amounted to Rs. 778, of which Rs. 395 was recovered. Fifty-two inquests were held; 8 were suicides; 44 were accidents.

Wild beasts.—Three elephants, 2 royal tigers, and 14 cheetas were killed, for which rewards amounting to Rs. 112 were granted.

Population.—According to the census the population amounted to 118,464, being an increase of 3,311 souls over 1858-59, which was owing chiefly to immigration on account of coffee cultivation.

ADMINISTRATION OF THE HYDERABAD ASSIGNED DISTRICTS.

1859-60.

THE report on the administration of the Hyderabad Assigned Districts for 1858-59, is submitted to Government by Col. Davidson, the Resident, on the 23rd June 1860. The country was in a prosperous state; life and property were safe; crime showed a decrease, and the revenue an increase, unaccompanied by excessive taxation. The Judicial portion of the report has reference to the calendar year 1859, and the Revenue portion to the Financial year ending 30th April 1860.

Civil Justice.—Eleven Small Cause Courts were reduced and the other tribunals remained the same. The number of suits pending and instituted was 5,952, of which 2,828 were decreed —2,288 in favour of plaintiffs and 540 in favour of defendants; 1,287 were settled by razeenamah or mutual adjustment; and all with the exception of 2 in favour of plaintiffs; 885 suits were withdrawn and 445 dismissed for default. The value of property litigated was Rs. 4,85,748, and the cost of litigation Rs. 20,290, or Rs. 4-3 per cent. The average duration of

suits was 88 days, against 99 days in 1858. The appeals numbered 417, of which 156 were confirmed, 109 reversed and the rest disposed of in various ways. The number of persons imprisoned for debt was 121, all, with the exception of 18, in West Berar.

Criminal Justice.—There was a marked decrease in heinous crimes; there were 53 cases against 70 in 1858. The crimes of the 2nd class of atrocity decreased from 159 to 148. The number of dacoities was 53 against 65 the previous year. The crime was most prevalent in East Berar. The value of property stolen was Rs. 2,10,941, of which Rs. 33,723 was recovered. In 946 cases of reported crime no apprehensions could be made. Of the 3,725 cases in which apprehensions were made, 1,297 resulted in the acquittal of the prisoners, in 2,362 convictions were obtained, and 66 cases were pending. The average duration of suits was; in the Commissioner's Court 5 days; in the 4 Deputy Commissioners' Courts 11 days; in the 7 Assistant Commissioners' Courts 10 days; in the 8 extra Assistant Commissioners' Courts 9 days; and in the 36 Tehseeldars' Courts 7 days.

Police.—The force consisted of 2,067 policemen and 410 officers of a superior grade, 1,657 peons, and 4 duffadars and 59 sowars, costing in all Rs. 1,76,794. The Berar Hill Rangers also performed police duties. The village police amounted to 13,343 men and their remuneration in rent-free land and money payments was about Rs. 2,06,525. The Town Police numbered 1,047 men and cost Rs. 47,421 annually.

Jails.—The daily average number of the prisoners was 1,226. Each prisoner cost Rs. 42-7-1, of which Rs. 19-10-7 was for guarding, and Rs. 22-12-6 for feeding and clothing him. The total cost of the prisoners was Rs. 63,050. The profit from the sale of jail manufactures was Rs. 1,100.

Land Revenue.—The number of beegahs under cultivation showed an increase of 27,282. The increase in three years was 6,71,186 beegahs. The demand was fixed at Rs. 39,65,451, of which Rs. 1,41,388 remained uncollected on 30th April. An increase of revenue was expected when the survey should be completed. The waste arable land amounted to 4,251,593 beegahs.

Excise, Opium and other Revenue.—The Abkarree amounted to Rs. 3,83,528, being Rs. 68,265 more than in the previous year. The stamp revenue was Rs. 33,043. The whole amount demanded on such extra sources of income was Rs. 5,40,152 of which all was realised by the 30th April, with the exception of Rs. 19,308. The local funds realised Rs. 1,62,732, of which

the sum of Rs. 1,07,814 was expended on village roads and local improvements.

Jagheers, &c.—The investigation of the more important alienations was carried on during the year by the Inam Commissioner, while the settlement of small land and money grants was entrusted to the district officers. The Inam Commissioner decided 291 claims to money allowances amounting to Rupees 21,899. Of these 245 representing Rs. 18,397-9 were disallowed, 1 continued in perpetuity and 45 amounting to Rs. 3,216 were granted for one life; while 309 remained undecided. The title to 21 Jagheer villages was reported on; 8 grants worth Rs. 2,420 were continued in perpetuity; 9 worth Rs. 15,625 were continued during the lives of the present possessors subject to the payment of a quit rent of Rs. 8,685; 4 claims were rejected, 205 claims to land remained undecided at the end of the year. The petty claims decided numbered 11,157, leaving 1,516 on the files. The number of Jagheer villages was 520 and their revenue Rs. 1,41,271; 275,481 beegahs were held as service Inams, and 351,895 rent free on other grounds.

Public Works.—The total expenditure was Rs. 3,73,087, or including salaries and establishments Rs. 4,58,036. The Sholapore and Hyderabad road was completed throughout, with the exception of two bridges over the Tandulwarree and Booramee streams. The Moosey river channel was opened in November 1859.

Railway.—The line from Bombay to Sholapore, which skirts for a considerable distance the Western boundary of the Dharaseo district, afforded great facilities for exporting its products.

Finance.—The actual income was Rs. 45,59,061. The civil charges amounted to Rs. 12,35,958. The total receipts from the Districts from the year of cession were Rs. 2,96,81,765, and the disbursements for the same period Rs. 3,10,26,559, leaving a balance of Rs. 13,44,834 against the Nizam. But a sum of Rs. 13,76,653 equal to Hyderabad Rs. 16,65,750 was paid off in the first year after cession as arrears to the Contingent. Since 1854-55 transit duties to the amount of Rs. 3,57,379 annually have been remitted. The expenditure of the years 1857-58 and 59 was increased by extraordinary and unforeseen war charges.

Political.—The Nizam's Government made strenuous exertions to repress the present great cause of commotion in the Deccan, by adopting the most rigorous measures against marauding Rohillas and other freebooters; and as the Government of India assisted them by permitting sentences of transportation, which, after enquiry, met the approval of the Resident, being

carried out at the Andamans, it was anticipated that the excesses of the Rohillas would meet with an effectual check, and at no distant period be altogether put a stop to. Their friends urged that no Mahomedan Government could, according to the law of the prophet, sentence a Mahomedan to transportation or imprisonment in a country where the Moslem religion was not in existence, and where there were no mosques; but this piece of legal Mahomedanism was not apparently received as conclusive by the highest Criminal Court in the city of Hyderabad, which lately sentenced several Rohillas to transportation for life.

Miscellaneous.—Experiments were made with the view of introducing exotic cotton but without success. The seed was bad. Measures were taken to preserve the teak forests of Berar, and to promote the growth of trees in Raichore and Dharaseo. The Revenue survey measured 33,163 fields, containing 7,40,977 acres. The cost of measurement was As. 1-2½ per acre, and of classification 6½ pies, or 1¾ annas for the survey and settlement together.

ADMINISTRATION OF PEGU.

1859-60.

Civil Justice.—The number of original suits instituted in all the Courts was 26,965 and of appeals 960, showing an increase of 2,285 original suits and a decrease of 13 appeals. Of the suits and appeals 11,403 were for debt, 3,921 for divorce, 2,878 connected with land, 6,012 other regular suits and 3,441 summary cases. Of the above 27,001 original suits and 785 appeals were disposed of. The value litigated was Rs. 49,46,614. A Code of Procedure grounded on Act VIII. of 1859, was prepared and approved of by Government. A code of Burmese law was also prepared, relating chiefly to marriage and title to land.

Criminal Justice.—Of 20,515 persons arrested on all charges, 11,703 were convicted, 8,248 were acquitted, 202 died, escaped, or were transferred, and 362 awaited trial or were committed to the sessions at the end of the year. Of 12,674 witnesses examined in all the courts, three-fourths were detained for one day only. At the sessions trials there were 18 prisoners convicted of murder, 22 of dacoity with murder, and 14 of river dacoity with murder. Sentence of death was passed on 7. The rest were sentenced to transportation or penal servitude.

Police.—A Karen Corps was established, to protect the Karens in Toungoo from attack from without. The six companies were composed of Karens, Burmese and Shans in equal proportion. One Police Company of Burmese was raised in the Rangoon district. In crimes of the first class there was a marked decrease. Against 101 crimes of this class in 1858 there were only 50 in 1859. The murders decreased from 41 to 25, and the gang robberies from 50 to 13. The greater proportion of the crimes occurred in Prome. In January 1860 a body of 300 men under a well known bandit chief invaded the Prome district for the purpose of plunder, but were driven back and pursued by Capt. D'Oyley with a party of the Pegu Light Infantry and Police Corps. Thirteen were caught and seven were hanged on the spot. Crimes of the 2nd class showed an increase, but there were fewer gang robberies. Crimes of the 3rd class decreased from 2,847 to 2,646. The fourth class shows a decrease and the fifth an increase. The municipal funds for the support of the Police and conservancy in the principal towns amounted to Rupees 80,203.

Jails.—In the Rangoon Jail the convicts are divided into ten classes; half labour within the walls at stone breaking, others are employed in excavating tanks and in road labour. The cost of each prisoner varied from Rupees 64-0-6 in Henzada to Rupees 130-11-2 in Toungoo. The number of escapes was nine less than the previous year. The mortality in jails was great. In Prome it was rather over 27 per cent.

Land Revenue.—The demand was Rupees 12,62,283 against 12,08,408 the previous year. The maximum rate was raised from Rupees 2 to Rupees 2-8 per acre. The settlement officer surveyed 1,188 square miles and re-adjusted the assessment on 61,161 acres of cultivated land. A ten years' settlement was effected with the owners of nearly 10,000 acres of land. A settlement for five years was effected for the fisheries of the entire township of Angyee at the request of the renters themselves. The people were afraid of accepting the land settlement merely on account of their aversion to change, and not on account of its being unsuited to their habits and conditions of life. The example of the more intelligent communities would convince them of the baselessness of their fears.

The export of rice and paddy showed a falling off, in 1859-60. In 1858-59, 156,711 tons were exported, 120,271 by sea and 36,440 by river; whereas in 1859-60 only 80,453 tons were exported, 40,847 by sea and 39,606 by river.

Capitation Tax.—There was an increase of 16,624 rupees; there was no reason for believing that it was disliked by the people.

Customs.—There was an increase of Rs. 1,20,927 caused by the increased rates of duty under the new tariff. The value of trade was only Rs. 2,87,98,658 against Rs. 3,08,69,700 in 1858-59. This decrease was chiefly owing to rice being withheld from the market, and the import of treasure to purchase grain decreasing in consequence.

Education.—There is only one Government school, namely at Rangoon. The number of scholars during the year was 68. Education and civilization among the Mountain Karen tribes in the District of Toungoo continued to advance with steady pace. Karen teachers, carefully instructed by the Rev. Dr. and Mrs. Mason, went eastward among the Ka-ya or Red Karen tribes, where they were joyfully welcomed. There are fourteen tribes in the highland country, lying between the Rivers Sittang and Salween; the majority of whom have forsaken their ancient savage customs, and present the remarkable contrast with their wild countrymen, of civilization in its most important points, thus mingled with and contending against barbarism. From a careful estimate of the population made under the direction of the Rev. Dr. Mason, it appears that the Mountain Karen population east of the Sittang is as follows:—

Various Karen tribes.	*No. of Souls.*
True Karen	62,326
Red Karens (or Ka-ya,) Eastern and Western	200,000
Total	262,326

The former are those within British Territory. Of them the number under Christian influence, including all women and children, amounts to 25,615 souls.

The village schools were 133 in number, with 2,200 pupils. The Karen female institute at Toungoo was working well, as also the Normal School for Karen young men at the same place. In the districts of Bassein and Henzada missionaries were engaged in educating the Karen population. The Roman Catholic Missionaries had 50 boys and 30 girls in their schools at Rangoon. Their schools among the Karens contained 180 pupils.

Public Works.—The restriction on expenditure in this department and the lull in out-door operations allowed of time to bring up the arrears of office work. The budget system was fairly established. The total expenditure during the year was £135,000.

Electric Telegraph.—There were 8 stations and the length of

line open was 433 miles. Late in the season operations were commenced on the route of the line from Prome to connect Pegu with Calcutta. The total expenditure was Rs. 58,069. The receipts were Rupees 16,733 against Rupees 26,398 the previous year. The decrease was owing to the abolition of the rule making the repetition of certain messages compulsory, and also, to some extent, the introduction of cash payments for service messages. The number of messages was 8,924 against 10,709 in 1858-59. No less than 53 interruptions occurred during the year, of an average of four days.

Marine.—The Irrawaddy flotilla was reduced to five steamers and three flats, with a small extra flat laid up in ordinary. The expenditure was Rupees 3,34,209, of which Rupees 2,16,618 was for the flotilla, and Rupees 1,17,591 for the naval yard. The receipts amounted to Rupees 2,04,072 from the flotilla, and Rupees 25,912 from the naval yard. The receipts from the Port funds were Rupees 35,458, and the disbursements Rupees 35,138. The port dues were raised from 4 to 6 annas a ton, but the reduced number of vessels that visited the ports was the cause of the small balance in favour of the funds. The rate of freight by the Irrawaddy steamers was raised from 15 to 25 Rupees a ton from 1st January 1860.

Finance.—There was an increase in the expenditure of Rupees 1,04,819, while the addition to the revenue was not much more than that amount. The expenditure was as follows :—

	Rupees.
Judicial expenditure	11,28,113
Revenue „	3,51,131
Customs „	94,352
Marine „	3,69,348
Military „	1,39,041
General „	3,99,407
Total Rupees ...	24,81,392

Allowing 2,50,657 Rupees, or three-fourths of 3,34,209 Rupees (the total cost of the Irrawaddy flotilla, including dock-yard expenses,) as debitable to the military exigencies of the Province, the cost of every department of the Civil Administration of the Province for the past year may be set down at 22,30,736 Rupees, leaving 24,21,202 Rupees available for paying cost of military defence.

Political.—Friendly intercourse between the Burmese Court and the British Authorities in Pegu continued uninterrupted during the year. At the close of the rainy season of last year the Commissioner was enabled to fulfil his former promise of

paying a friendly visit to the King of Burmah at his new capital, Mandalay. After twenty-two days' progress in boats furnished by the King from the frontier, the party arrived at the capital, where they were received by the King and Nobles of the Court with every demonstration of friendship. After a pleasant sojourn of three weeks the party returned by boats to the frontier. The works of the new city were still in progress.

In the month of February 1860, a fanatical impostor adopting (to the Boodhist) the alluring title of Embryo King, succeeded in collecting an armed rabble from among the more ignorant of the populace of the Toungoo District and the neighboring tribes, and attempted to march on Toungoo, but was intercepted by the Deputy Commissioner with a small police force, accompanied by a few soldiers of Her Majesty's 69th, by whom he was captured; he was tried, and suffered death as the penalty of his rebellion. This Embryo King had no connection with the man who assumed a similar designation, and formerly gave some trouble in the Martaban District. Such impostors frequently appear in various parts of Burmah.

Military.—The forces in Pegu on 30th April 1860 were 131 European officers, 14 medical officers, 2,059 European non-commissioned officers and privates, and 6,753 native officers, non-commissioned officers and men. Besides these the local corps, viz. the Pegu Light Infantry and the Pegu Sapper Corps consisted of 5 European officers, 1 medical officer, 2 other Europeans, and 1,085 natives. The Pegu Light Infantry contained 133 Malays and 773 Burmese.

Population.—The population was 948,731 against 890,974 in 1858 and 840,203 in 1857. The proportion of males, females, adults, and infants was :—

Men ...	...	317,680	
Women ...	...	297,961	
			615,641
Boys under 16	...	175,335	
Girls ditto ...	...	157,755	
			333,090
			948,731

The above is exclusive of the residents in the several military cantonments.

The area of Pegu is 32,250 square miles, and the number of townships 66.

Agriculture.—There was a diminution in the cultivation of tobacco and indigo. About 40 maunds of the latter were export-

ed from Burmah for the first time. From an interesting report by Dr. Brandis, on the subject of cotton cultivation, the following information is gathered :—

"The cotton cultivated in Burmah is a variety of *Gossypium herbaceum:* the shrub is small, with small hairy leaves; the cotton is short stapled, but very fine; with the exception of a limited quantity in gardens, it is at present cultivated only on toungyas and clearings on the river side. On hilly spots the seed is cast in June, after the paddy land has been sown; it flowers about the same time that paddy is reaped, and is gathered in February and March—a small quantity is gathered in the second year, but rarely in the third." The hill cultivators would be glad of a description of plant that would attain a sufficient height to over-reach the low jungle that springs up after every rainy season; and there are extensive tracts, Dr. Brandis states, in the mountains between the Sittang and Salween Rivers, where the inhabitants are desirous of cultivating cotton; but do not succeed with the kind at present grown in Burmah. Some plants that were raised from "Upland" and "Sea Island" seed, throve very well on the slopes in the Myitgwan Valley, and Dr. Brandis adds :—"If the cultivation should prove successful, vast tracts of fertile mountain land might become available for cotton cultivation, not only in the tract between Toungoo and Karen-nee country, which is comparatively well populated, but also on the whole of the mountains to the south, comprising the plateau of the Upper Yemzaleen, and the hills between it and the Salween, a country once densely populated, now in a great measure deserted, but which, under the influence of peace and a wise administration will, undoubtedly, revert to its former flourishing state." The general result of Dr. Brandis's Report is, that at present the indigenous cotton of Pegu cannot be exported with profit to England; a small quantity finds its way to Eastern Bengal in country vessels. From Burmah Proper cotton is exported overland to the Chinese Province of Yunân, the estimated annual value of which reaches probably to £250,000. All that can be done at present is to endeavour to introduce into the Pegu Province that description of cotton which shall offer the most inducement to cultivators to undertake its culture, and this object is being steadily pursued.

Forests.—The number of logs sold and amount realized thereon, during the past and previous year, were :—

Year.	*No. of Logs.*	*Amount realized.*
1858-59 ...	... 20,561 ...	... 3,75,923 0 0
1859-60 ...	... 15,416 ...	... 2,11,980 15 6

On the 30th April there were at the different depôts 831 logs,

the value of which, at the last year's average rate, would be Rupees 13,755-9. The average rate per ton obtained during the past year was rather over 31 Rupees. The disbursements of the department amounted to Rupees 1,73,658-4.

Topographical Survey.—The field work performed up to 1st May was set down at—

6,400 square miles surveyed,
100 miles traversed,
40 miles triangulated,

at an expenditure of Rupees 42,416-1, which gives an average a little over Rupees 6-10 per square mile.

Vaccination.—Greater success was attained than in any previous year, particularly in Prome and Henzada. The total number of cases was 1,732, of which 548 failed. The most efficacious vaccine matter was that obtained from Simla.

Miscellaneous.—The experiment of establishing a sheep farm for the supply of European troops proved a failure. Disease carried off a large portion of the sheep. The outlay was rupees 57,647, and the value of the stock in hand rupees 19,690, the difference being a dead loss. Elephant catching was practised by the Burmese. They hunt with powerful tusked elephants, but by that method few or none exceeding 6 feet in height can be caught. No elephant under 7 feet is of use for army commissariat purposes. Buffaloes and oxen were becoming scarce and high priced. The settlement officer, Captain H. Browne, reports that Swantay "Tangyee" or the "forest tract" of the Rangoon district, measuring about 20 miles in length by 5 to 7 in breadth, is an admirable locality for settling any foreign immigrants acquainted with the finer modes of cultivation who could be attracted to Pegu. The soil is extremely fertile, but is thrown away upon the present population, chiefly Karens, who know no method of turning it to account, except by the wretched system of "toungyas," by which numerous fine trees are yearly sacrificed in order that a single crop of brinjals or cucumbers may be produced from their ashes. The tract abounds in springs, and water is everywhere procurable by sinking wells. The French traders and artisans who proceeded to Mandalay, as mentioned in the previous report, were not very successful, several of them having left the capital and settled in Rangoon. Chinese Pilgrims from Yunân and Laos came down to worship at the Rangoon Pagoda, and many of them appeared disposed to settle in the country. From the Burmese dominions also many of the Kathay tribe, inhabitants of Munipore, came down and settled in Prome and other towns as silk weavers.

ADMINISTRATION OF THE STRAITS SETTLEMENTS.

1859-60.

Civil Justice.—Fixed salaries were allowed to the Sheriff and his officers in lieu of any remuneration from fees. A revised table of fees was sanctioned for the Courts of Requests. The number of cases filed were, in Penang 5,025; in Province Wellesley 1,370; in Malacca 1,291; and in Singapore 4,149: The cases heard were, in Penang 1,309; in Province Wellesley 336; in Malacca 240; and in Singapore 1,592. The aggregate of the fees realised was Rs. 17,839.

Criminal Justice.—In Penang and Province Wellesley there were 2,985 cases reported, and 3,606 persons apprehended, being an increase of 637 cases over the previous year. In Singapore 6,990 cases were reported and 8,848 persons apprehended, being an increase of 1,210 cases. In Malacca 995 cases were reported, being an increase of 161, and 939 persons were apprehended. The most interesting case was one of piracy at Singapore in which a conviction was obtained. The pirates were captured by H. M.'s steamer *Esk*, after they had succeeded in beating off the steamer *Hooghly*. While being conveyed to Bombay they rose upon the guard and after a deadly struggle were overcome by the European Artillery.

Police.—No change took place in the Police during the year. Fifteen cases of murder occurred at Singapore; 20 of cutting and wounding, 27 of burglary, 101 of robbery; 1,593 of larceny, &c., at all three stations the value of property recovered was very small, but the value was in many cases exaggerated.

Revenue.—The following Table shows the amount of revenue realized for the past year at the different stations in the Straits Settlements.

	1858-59.	1859-60.	*Decrease.*
Singapore ...	1,10,971	67,927	43,044
			Increase.
Penang ...	35,028	37,749	2,721
			Decrease.
Malacca ...	37,307	36,667	640
			Decrease.
Total, Rupees ...	1,83,306	1,42,343	40,963

The large deficit, as compared with dues for former years, at Singapore, is imputed to the fact that hitherto a very consi-

derable portion of the sums collected as annual revenue has been derived from the sale of Government lands; that, in fact, in each year's return a portion of the State capital has been credited as annual income. At Malacca, owing to the peculiar nature of the land tenure, under which doubts have been expressed as to the power of the Government to confer valid titles upon the purchasers of those estates, the rights in which of the former grantees have been redeemed by an annual payment from the Treasury, and which comprise the most valuable portion of the British Territories, the amount accruing from the sale of land was trifling. The sole cause of the deficiency in the revenue was the great falling off in the tin mines, the tenths on which only amounted to 25,800 Rupees instead of 30,446 Rupees, as realized in 1858-59. The tenths on commuted and uncommuted land yielded an excess of 2,463 Rupees over the collections of the previous year. At all three stations there were heavy arrears due on account of land revenue.

Excise.—The sum realised, Rs. 9,42,924 shows an increase of Rs. 13,065. The arrangement of disposing of the Opium farm for a term of years instead of annually was found advantageous.

Education.—The cause of complaint with all the educational establishments in the Straits Settlements, was the too early removal of pupils. Of the three Protestant Free Schools the Singapore Institution is the most important.

Public Works.—The attention of the officers of the Public Works Department, both at Singapore and Penang, was for the most part directed to the construction of military works and buildings. At Singapore the batteries at Mount Palmer and Fort Fullerton, with the requisite accommodation for the troops by which they were to be occupied, were completed, whilst at Fort Canning, the barracks, gateway, and some of the gun platforms and expense magazines, alone remained in an unfinished state—many even of these works were fast approaching completion. At Penang barrack accommodation was provided for the corps of native infantry employed in taking the duties of the station, and some slight improvements were made to the quarters in Fort Cornwallis. The principal work upon which the Public Works Department at Singapore were engaged, was clearing the beds of several nullahs and small streams that had become completely choked up, and thus interfered with the proper drainage of the country, independent of other advantages, both in a sanitary and agricultural point of view.

Electric Telegraph.—Although not actually connected with

the proceedings of the Straits Government, the laying down the Electric Telegraph Cable from Singapore to Batavia, the first link between India and Australia, is a fact of too much importance to be permitted to pass unrecorded. The junction between the two places was effected on the 24th November 1859, and for some time the Telegraph worked most successfully; subsequently, however, there were frequent interruptions of communication, owing to the cable having been broken, either from friction against the coral reefs over which it passes, or to its having been dragged by the anchors of vessels anchoring in the narrow straits in its line of passage. The Netherlands Government has liberally conceded to the Governor of the Straits Settlement and to British Consuls the same privileges with regard to the despatch of Telegraphic messages as enjoyed by its own high Officers of State.

Finance.—The following Comparative Statement, showing the disbursements for the years 1858-59 and 1859-60, includes all local items of expenditure as well as those entered under the head of "Straits Charges" being incurred on account of the Settlements generally, and of which the cost is debited equally to the three stations:—

		1858-59.	1859 60.
Singapore ...	L. C.	3,67,304	3,15,511
	S. C.	47,759	55,878
Total ...		4,15,063	3,71,389
Penang ...	L. C.	2,40,713	2,12,706
	S. C.	42,517	41,550
Total ...		2,83,230	2,54,256
Malacca ...	L. C.	97,858	1,31,006
	S. C.	47,759	55,878
Total ...		1,45,617	1,86,884
Grand Total ...		8,43,910	8,12,529

The income for 1859-60 was Rs. 12,54,534, leaving a surplus of Rs. 4,42,002 to be appropriated to the repayment of disbursements made on account of the troops and the different Military Departments, and for the support of the convicts. The actual sum disbursed from the local treasuries on account of the troops for the year 1859-60 was Rs. 5,49,667.

Political.—The Sultan of Tringanu visited Singapore. The steamer *Hooghly* was sent to convey him and his suite, and

during his stay he was provided with suitable accommodation at the public expense.

Military.—In January 1860 a draft of European artillerymen arrived to strengthen the company stationed in the Straits. The 14th M. N. I. was relieved by the 40th M. N. I. The Europeans were throughout the year extremely healthy but there was much sickness among the native troops.

Population.—A census was taken during the year by the police authorities. The population at Penang and Malacca was gradually, and at Singapore rapidly, increasing. The small proportion of females was everywhere noticeable, particularly at Singapore and Penang. The population of Singapore was 81,792 souls. There were 1,503 European and Eurasian males, 942 females; 7,148 Malay males, 3,740 females; 10,772 Kling males, 963 females; 834 Bengallee males, 402 females; 46,795 Chinese males, 3,248 females; 12 Burmese and Siamese males, 2 females; 477 Buggis males, 429 females; 2,514 Javanese and Boyan males, 894 females; and 65 Arab males, 52 females; making a total of 70,120 males and 11,672 females, exclusive of a few spirit and opium farmers, &c., and prisoners. Penang and Province Wellesley contained 1,130 European and Eurasian males, and 941 females. The Malays numbered 36,791 males, and 34,932 females; and the Chinese 27,050 males, and 9,172 females. The total census was 1,24,772 souls. Malacca contained 1,445 European and Eurasian males, and 1,203 females; 26,973 Malay males, and 26,581 females. The grand total was 68,458.

Agriculture.—There was but one sugar estate in Singapore. The cultivation of nutmegs, pepper and gambier was decreasing. The neighbouring native state of Johore offered more advantages. At Malacca the murrain amongst the cattle caused great loss and distress. In Penang and Province Wellesley agriculture was in a much better state than at either of the other stations. Sugar, cocoanuts and rice were largely cultivated. Tapioca was recently introduced.

Municipal Affairs.—At all three stations in the Straits Settlement the municipal funds were still inadequate to meet the expenses that would be incurred in fully carrying out the object with which they were established; this may, in a great measure, be ascribed to the heavy burthen imposed upon them by the maintenance of the local police force, a burthen that has been steadily increasing, but which it is now hoped has reached its utmost limit as regards Singapore and Penang. At Malacca a considerable increase of expenditure on this account is still needed, but at this station the municipal fund already receives pecu-

liary assistance from the State, and, consequently, such increased expenditure must be defrayed from the public treasury.

Jails and Hospitals.—The new General Hospital at Singapore was completed towards the end of the year. The new Lunatic Asylum and dispensary were nearly completed. The rate of deaths in the convict lines was 3·90 per cent. On the 1st of May 1860 there were 206 local prisoners in the House of Correction; the average number was 215. There were 15 deaths. The cost of the maintenance of local prisoners was Rs. 11,956 and the value of their labour Rs. 18,380. In Penang the mortality in the convict lines was 2·91 per cent. Sickness was common but generally of a trifling character. The average number of prisoners in the House of Correction was 110. There was only one death. The value of the local prisoners' labour was Rs. 8,116 and their cost Rs. 6,976. At Malacca alterations and additions were made to the General Hospital. The admissions into the convict hospital, where local as well as trans-marine convicts are treated, was, with an average strength of 587 prisoners, only 332; the death rate was 1½ per cent. The number of prisoners in the House of Correction on 1st May was 48, being 14 in excess of the previous year. Their cost was Rs. 2,031 and the value of their labour Rs. 1,653.

Convicts.—The number of convicts at Singapore on 1st May 1860 was 2,275, viz. 2,151 men and 124 women. The number of convicts removed, by death and otherwise, was 153, and the number received was 98, of whom 39 came from Rangoon, 8 from Madras, 27 from Bombay, 21 from Ceylon and 3 were re-apprehended. The value of convict labour was Rs. 1,62,230. The expenses of the Department amounted to Rs. 1,17,577. The convicts at Penang numbered 1,256, of whom 93 were women. The number of casualties was 96, and of new arrivals 50, of whom 4 came from Madras, 42 from Bombay and 4 were re-apprehended. The value of their labour was Rs. 95,479, and the expenditure on their account Rs. 77,330. At Malacca the number of convicts was 532. The number of casualties was 37, and of new arrivals 28, all from Ceylon. The value of convict labour was Rs. 32,741, and the expenditure Rs. 29,987.

Commerce.—The value of exports from Singapore was Rs. 5,65,13,885, and of the imports Rs. 4,71,99,139, exclusive of the value of the cargoes of the steamers *Fiery Cross* and *Lancefield* for a period of seven months, rated at Rs. 50,00,000, of which no returns were furnished. The exports of Penang amounted to Rs. 1,95,000, and the imports to Rs. 1,58,00,000. The exports of Malacca amounted to Rs. 34,52,396, and the imports to Rs. 57,48,887.

MILITARY SANITARIA.

Indian Records, Military Department No. 1.

1861.

A SERIES of papers on the extent and nature of the Sanitary Establishments for European troops in the Bengal, Madras and Bombay Presidencies, is published by the Military Department in March 1861.

For the sake of reference an alphabetical arrangement of the various Sanitaria will be found most convenient.

Abbottabad is situated in a bare and rather narrow valley among the Hazara Hills, 3,600 feet above the level of the sea. The climate is temperate. In winter snow falls in the valley but seldom lies more than a few days. There is a good deal of rain in spring. In the hottest weather the thermometer in a house does not rise higher than 87°. The climate suits Europeans well. The Military cantonment is situated at the highest part of the valley and the drainage is everywhere good. Dr. Mackinon thinks that this should not be made a Sanitarium as malarious fever, though of a mild character, is endemic, and also because the vicinity of Murree renders the existence of another Sanitarium in that quarter unnecessary.

Bison Hill is on the right bank of the Godavery, about 60 miles up the river from Rajahmundry. It is accessible by canal and river from very near the coast, and the canal will ultimately be completed to the coast. The spot was visited by the Commander-in-Chief of Madras in 1859. He says of it:—"It is sixty miles above Dowlaishweram upon the Upper Godavery. It is 2,400 feet above sea level, and we walked up from the river to the summit in an hour and a half. The jungle is very dense at the foot of the hill, but gradually decreases with the ascent, and the summit is a fine open plateau six miles long by half a mile broad. Both in appearance and temperature it reminded me forcibly of Ramandroog, which has been so very successful as a Sanitarium for Europeans. I think the suitability, for this purpose, of Bison Hill, should be tested. A temporary, cheap Barrack for ten or twelve men, and small inexpensive buildings of the same description, for the accommodation of an Officer and a Medical subordinate, would quite suffice for experiment."

Chickuldah is a place that might be rendered available as a Sanitarium for soldiers from Kamptee. It is situated about 20

miles from Elichpore and 110 west by north from Kamptee. The elevation is 3,600 feet; the hot winds never reach it. The temperature is about 10 degrees below Elichpore. Soldiers might also be sent to it from Saugor, Mhow, Jaulnah, Jubbulpore, and all stations bordering on the Nerbudda.

Chinee is situated on the right bank of the Sutlej, seven marches above Rampoor and thirteen from Simla by way of Kotgurh. The climate is dry, elastic and bracing. Surgeon Alexander Grant, writing in 1854, remarks that most of the hill stations then resorted to were humid and enervating, and that localities more in the interior of the Himmalayas should be occupied. The climate of Chinee is so dry and clear that most travellers have no other protection than a small flimsy tent, which when rolled up does not form a cooly's load. It is admirably adapted to the cure of chronic bowel complaints, and rheumatic and syphilitic affections. Cases of heart disease and a few affections of the lungs should not be sent there, nor to any mountain climate. Kunawar is not adapted for winter residence, the cold is too severe and penetrating and the country is then unapproachable, from the roads being blocked up with snow. Dr. Grant considers that the advantages resulting from the establishment of a convalescent depôt at Chinee would fully counterbalance the additional expense incurred by its remote position. The vine grows luxuriantly in the open fields; there are ten varieties, and grapes are very cheap.

Cherra Poonjee.—This station is situated in the Cossyah Hills, between Sylhet and Assam, at an elevation of 4,120 feet above the level of the sea. Its site is a table land, composed of tertiary sandstone with beds of limestone, coal and shale. The rainfall is probably the greatest known in any part of the world. According to Colonel Sykes the almost incredible quantity of 610·35 inches fell in 1851. To show that this deluge is no mistake of record, he cites a letter in confirmation of the fact, from Professor Oldham, who spent the monsoon of 1851 at Cherra Poonjee, and kept a separate record: 50 feet 10 inches depth of water may be said to have fallen chiefly in 7 months; for in November and December there was not a shower, in January only ¾ of an inch, in February 3·05 inches, and in March 1½ inch. The south-west monsoon would appear to commence in April with 67 inches; followed by 115·15 in May, 147·20 in June, 99·40 in July, 103·9 in August, 71·7 in September, and 40·3 in October. So that the vapour from the south passed over Chittagong (116 miles south which only had 86·33 inches of rain) and little of it was condensed until it reached Cherra Poonjee and the Kasia Hills. But the discrepancy in the fall

in the neighbourhood of Cherra Poonjee itself, is not the least remarkable circumstance. Sylhet which lies below Cherra Poonjee, 23 miles to the south of it, and only 7 miles to the west, had only 209·85 inches of rain; the fall at the proximate places differing 400·5 inches. The greatest fall in any month at Sylhet was 43·35 in May.

The explanation of this extraordinary fall at Cherra is in the physical circumstances connected with its location. The Station being 4,500 (according to Professor Oldham, 4,118 feet) above the sea, facing the south, and the vapour from the Bay of Bengal, floating at a height of about 4,500 feet, passes over the plains of the Deltas of the Ganges and Bhramapootra, and first comes into contact with the Kasia Hills, and is immediately condensed by the lower temperature of the Hills; and then comparatively little of the vapour reaches the higher regions, as is the case in the Western Ghauts of India, where the maximum condensation takes place also at about 4,500 feet. This, Colonel Sykes adds, is shown at Darjeeling, 1,500 feet above Cherra, 134 miles to the north, and 3¼ of longitude to the west of it, the fall there being only 125·20 inches; and yet rain fell at Darjeeling in every month of the year, the maximum fall being 31 inches in June. The excessive dampness of Cherra was found to be so prejudicial to the health of those sent to the Sanatarium that the establishment was abolished in 1834. The average temperature of the station is 12° below that of the plains of Bengal, while during the hot months the difference increases to 20°. There are spots in the Cossyah Hills where the annual rainfall is not more than one-half as copious as that which prevails at Cherra. Mr. W. J. Allen mentioned three places which appeared to possess advantages over Cherra Poonjee as sites for European barracks, Lailangkot, 18 miles from Cherra, at an elevation of 5,703 feet; Mourong 21 miles from Cherra, at an elevation of 5,600 to 5,700 feet, and Maupholong, 18 miles from Cherra at an elevation of 5,931 feet.

Deccan Sanitaria.—In the Sind Division there is a small Sanitary Establishment on the sea-shore at *Ghizree*, near Kurrachee. Dr. Collier states the class of diseases for which it is suitable, and shows that the only obstacle to any desirable extension of it is the want of water. This want is shared by the whole Cantonment at Kurrachee, and probably the measures under consideration for the water supply of the Cantonment would, if effective, be applicable to the Convalescent Station.

In the Northern Division is the Sanitarium of *Mount Aboo.*

The Superintending Surgeon, Dr. White, points out the need of greater accommodation. The space is very limited, but, doubtless, by good management, the needful extension of the buildings could be effected. Mount Aboo is in the territories of the Rao of Tarong, 50 miles from Deesa. At first it was only resorted to by the officers of the station of Deesa, but in 1851 European soldiers were sent up and a hospital was built.

Dalhousie.—This Sanitarium was intended for the troops at Sealkote, Meean Meer and Jullunder, but it had not been occupied when reported on. (November 1859). It is 5,500 feet above the level of the sea, and is described as possessing all the advantages of Murree.

Dhurmsala or Bhagsoo.—This depôt is situated in the Kangra Hills at an elevation of 5,000 feet, about nine miles from Kangra. The depôt consists of only two Barracks each capable of containing 15 men. The Hospital is capable of containing 8 men. The meat obtainable is inferior, but the bread is of excellent quality. Dhurmsala is situated on a spur of the great Himmalayan chain, which rises immediately behind it to an altitude of 16,000 feet, and is in direct distance only a few miles off. The rainy season is very heavy. During the month of August 1858 alone, the rainy season of that year being unusually light, 79 inches of rain fell. The yearly rainfall varies from 100 to 175 inches. The temperature ranges from 60° in January to 83° in June. Cholera visited this station in 1856. Cases occurred at least up to 7,000 feet above sea level. In 1856 Kangra and Noorpore escaped the disease, but in 1857 they were visited with great severity.

Dugshaie has been used as a Sanitarium for European troops since 1849. It is eight miles East of Kussowlie, about the same distance south-east of Subathoo, and 16 miles South of Simla. Its elevation is from 5,600 to 6,000 feet above the level of the sea. The Hill on which it is situated is surrounded by deep valleys, which secures perfect drainage, while the absence of any high hills in the immediate vicinity secures free ventilation. There are no trees in the place and this gives it rather a bare and dismal appearance. The level ground is so small that the soldiers cannot take much exercise. The barracks are nine in number and are intended to contain 800 men. The water supply is plentiful and to all appearance good. There is a soldier's garden from which the troops are supplied with vegetables. The cantonment is surrounded by a road about 4½ miles in extent. Diarrhœa and dysentery frequently attack delicate men and women, particularly after the rainy season has set in. Between the years 1849-50 and 1855-56 inclusive the mortality

rate among the troops ranged from 20 to 62°733 per 1,000. The temperature ranges from 38° in December to 72° in July.

Darjeeling is situated on a spur running northward from the second range of the mountains of Sikkim. It is 30 miles from the foot of the hills by the road, and about 15 in a straight line, with an elevation of 7,166 feet. The mean annual temperature is 55°65. The air which is keen in the cold dry weather is cool and pure at all times. The rainy season extends from May to the middle of October, and the dry season from the middle of October to May. The former is uniformly mild and the latter is very pleasant dry and cold. The annual rainfall is on an average 135 inches. During the rains the quantity of moisture constantly being condensed in the atmosphere causes so much cloud and mist that the sun rarely shines, but the morning or evening is tolerably fine. It is stated that cold and inflammatory affections rarely follow exposure to wet in this climate, owing to the slowness of evaporation and to the circumstance of the rain being sometimes three degrees warmer than the temperature of the air. The convalescent depôt is a mile south of the station and 500 feet above it on a Hill called the Jella Pahar or Burnt Mountain. The temperature is 2 degrees below that of the station hospital. There are five Barracks which will accommodate with ease 250 men. There is also a barrack for married soldiers, and an hospital for 30 patients. The following table shews the working of the three principal convalescent depôts in Bengal for five years:—

Memo. shewing the Strength, Admissions into Hospital, Deaths, &c., in three Convalescent Depôts in the Bengal Presidency, for 5 *years, viz., from* 1852-53 *to* 1856-57.

Years.	Darjeeling.					Landour.					Murree.				
	Average strength.	Total treated.	Died.	Rates per cent. of Deaths to treated.	Deaths to strength per cent.	Average strength.	Total treated.	Died.	Ratio per cent. of Deaths to treated.	Deaths to strength per cent.	Average strength.	Total treated.	Died.	Ratio per cent. of Deaths to treated.	Deaths to strength per cent.
1852-53	86	101	1	0·99	1·16	173	423	9	2·13	5·20	100	231	5	2·16	5·
1853-54	78	143	6	4·20	7·69	145	449	10	2·23	6·90	99	231	5	2·16	5 05
1854-55	116	140	1	0·71	0·86	162	464	6	1·27	3·70	123	171	11	6·43	8·94
1855-56	87	176	1	0·57	1·15	155	422	5	1·18	3·23	154	309	10	3 ·24	6·49
1856-57	74	155	1	0·65	1·35	165	412	13	3·15	7·88	72	208	7	3 ·37	9·72

It will be at once observed how much lower the death rate has generally been at Darjeeling than either at Landour or Murree. Whether this may be in part attributable to the better climate and arrangements, or to a more judicious selection of cases for the depôt can only at present be surmised. It appears probable, however, that the higher mortality rates at Landour and Murree are mainly attributable to the large proportion of bad cases received there from Peshawur—a class of cases which it is now generally considered do not, for the most part, profit by removal to the Hill Convalescent Stations.

Galee Purwuttum.—This is the name of the high part of a range of hills about 50 miles from Vizagapatam which was visited by a committee of medical officers early in 1859 and their report was most favourable in every way.

Hazarecbaugh is in Ramghur, about 239 miles north-west of Calcutta, and about 20 south of Burhee on the Grand Trunk Road to Benares. It occupies an extensive wooded plateau at an elevation of 1,750 feet. It was the head quarters of a Royal Corps for some years but ceased to be a cantonment for European troops in 1845. It has subsequently been re-occupied by a regiment. The situation is healthy and the climate delightful as compared with Lower Bengal except that it is within the range of the hot winds. The native jail is one of the healthiest in Bengal, the mortality being 30·5 per 1,000, while the decennial average death rate in all the Bengal Jails was 69·8. In 1837 H. M.'s 49th Regiment suffered severely from cholera at Hazareebaugh, and also from fever, but in other respects the station was and is a healthy one. As compared with Dinapore the deaths about the period referred to were:—

	Hepatitis.	*Dysentery.*	*Apoplexy.*	*Total.*
Dinapore,	4	10	5	19
Hazareebaugh,	1	3	0	4

Jackatallah.—When this place was visited by the Governor and the Commander-in-Chief of Madras in 1858 it was resolved to establish a convalescent depôt there in addition to the barracks which had been in existence for several years previous. The Sanitarium was intended to accommodate 400 soldiers, from the troops at Bangalore, Trichinopoly, Cannanore, Madras and the Mount.

Kamptee.—There is no established place of resort for sick soldiers from this station. Chickuldah has been spoken of as a suitable spot for a Sanitarium, and has long been used by officers and their families. (*See Chickulda.*) Maithoor, a hill about 90 miles from Kamptee, has also been favourably mentioned.

Kattiwar Coast.—There are many diseases prevalent in West-

ern India to which the climate of a hill station like Mount Aboo is not suitable. For such a sea coast Sanitarium would be an advantage. The eastern coast of Kattiwar, south of Gogo has claims to notice as a suitable spot for the establishment of a Sanitarium.

Kussowlie.—This station is 45 miles from Umballah and 32 from Simla. It is 6,400 to 7,000 feet above the sea level. It is a Hill about 5 miles in circumference, considerably detached from the chain of which it forms a part. The soil overlying the rock is light and porous. Good water is always obtainable, but at a distance of 700 feet below the level of the Barracks. The climate is rendered dry by the nature of the soil and the absence of underwood; but dense fogs prevail during the rainy season. The annual rainfall is not more than 70 inches. Kussowlie has been used as a Sanitarium since 1842. In 1855 cholera visited the station. Diarrhœa is very common. The generally weak and broken regiments sent there have on an average presented a rate of mortality much higher than that which has prevailed during a similar term in many of the larger stations of the plains—as Jullunder, Agra and Meerut. The following shows the average yearly deaths to 1,000 of strength for 10 years:

1846 47	1847-48	1848-49	1849-50	1850-51	1851-52	1852-53	1853-54	1854-55	1855-56
56·122	44·181	69·519	15 152	21·439	50·179	24 550	16 313	43·551	35·225

When Inspector General Mackinon examined this station in September 1859, he found the situation of the barracks very unhealthy and inconvenient. Since then six new barracks have been constructed on judiciously chosen sites. Dr. J. N. Bell, of H. M.'s 92nd Highlanders, reports on the station in 1859. He found that beneficial effects resulted in cases of disease not attended by advanced organic lesions, in debility from fevers where it is not too great, or where the constitution has not become too much impaired by long residence in India or from other causes, in syphilis, in diseases of the spleen, and in the cases of men who have not been so severely attacked by disease as to unfit them for duty during the healthy season. Benefit did not result in cases of extreme debility, especially from Peshawur fever, in advanced organic diseases of any description, in the chronic rheumatism occurring in old worn out and intemperate men, &c.

Landour is at an elevation of from 7,300 to 7,572 feet above the sea level. It is situated in the district of Dehra Dhoon, 3 miles east of Mussourie. It was the first Hill Sanitarium established for our European troops in this Presidency. Landour is situated at a distance of about 80 miles from Meerut. It and Mussourie are approached by an excellent road. There are cha-

ly beate and sulphureous Mineral Springs at a distance of from 7 to 8 miles. Government have sanctioned water carriers to bring a daily supply for the use of the Convalescents' Hospital. Cholera and small-pox sometimes occur and bowel complaints are rife among the convalescents. The ordinary hill diarrhœa is not so common as at most other stations. The rainfall in 1855-56 was 71·09, and in 1856-57, 107·95 inches. The hospital is large and commodious. The barracks consist of bungalows situated on the summits and partly on the slope of the hill. They are ill-ventilated and overcrowded. The drainage is excellent, and the hill is swept by every breeze.

Malcolm Pait.—The Station Malcolm Pait in the Deccan is situated on the western slope of the table land in 17°56 North Latitude, and 73°30 East Longitude, and has a general elevation of about 4,500 feet. The accommodation consists of Government Quarters for 16 sick Officers, and 77 private Bungalows. In the year 1829 a party of Invalid Soldiers was sent to this Sanitarium, but the selection of cases and of the season was unsuitable. The result was unfavourable, and the experiment has not been repeated. Since that period, however, the annual resort of an average of about 300 visitors, Civilians, Military Officers, and others, with their families, has afforded ample opportunity of determining the qualities of this Hill climate, and its influence on the European constitution in health and disease.

Murree.—This convalescent station was established in 1851. It is situated in the Hazara hills in the Punjab, a distance of 36 miles from Rawul Pindee. The hill is well wooded on its northern slope. The rainfall is slight, being usually about 35 inches, but 51¼ fell in 1856. The winters are severe. There is accommodation for nearly 300 men in the barracks. Invalids sent to Murree usually arrive towards the end of April and leave in November. Rations are good and abundant in the summer but very bad in winter. In June 1858 cholera made its appearance and was very virulent.

Mussourie.—This is a Sanitarium for Officers adjacent to Landour. Its height is variously stated by different authorities, as being from 6,200 to 7,200 feet above the sea level. The rugged ridge on which the Station is situated consists, according to Mr. Everest, of beds of compact limestone, alternating with others of soft slate, and is analogous to what is called the transition limestone of the north of Europe, the mountain limestone of England. The Station is well supplied with provisions; and is replete with all the essential conveniences of an English watering place, an excellent Club-House, a Reading-Room, a Church, a Bank, and a Botanical Garden. There are several

Schools both here and at Landour. In 1856 a kind of low Typhoid fever broke out in one of those at Mussourie, and proved fatal in some cases.

Nynee Tal.—This Sanitarium is about 6,800 feet above sea-level. The lake is 6,409 feet, and the highest house 7,500 feet above sea-level. This lake is very deep and never freezes. The water is considered very wholesome, but it holds in solution a large quantity of calcareous salts. Hill diarrhœa and dysentery are unknown. Catarrhal epidemics are extremely common. The climate for eight months in the year is clear bracing and envigorating. The bad season is from June to October. 219 days in the year are generally fine, 68 days cloudy, and 78 days rainy or snowy. The average fall of rain for the year is about 112 inches. The greatest fall was in 1853, 144·465 inches; the smallest fall in 1848 68·015. The average temperature at 2 P. M. is 64° to 65°. The temperature at dawn is about 51°. The highest ever marked in the shade was 80°, and the lowest 18°. The locality is admirably adapted for the use of a certain class of invalids, *viz.*, debilitated, dysentric, hepatic, and surgical cases, if kept up one whole year.

Poorundhur.—The Hill on which the Fort of Poorundhur is placed is an off-shoot from the easterly side of the western Ghaut range. It is situated in 18°22′ North Latitude, and 73°54′ East Longitude, and is distant 19 miles from Poona. It is a saddle-backed Mountain. The altitude of the highest part of the ridge is 4,570 feet, but that of the lower Fort in which the sanitarium is located is 4,200 feet. The lower Fort occupies a narrow table about a mile in length projecting from the northern slope of the mountain. There are two Barrack rooms which afford accommodation for 100 men, and a very good Hospital adapted for 40 sick. There are 10 private Bungalows generally occupied in the hot season by Officers and their families. The temperature is about 3 degrees higher than that of Malcolm Pait. The chief difference between the two places is in the rainfall, which in Poorundhur amounts to 72 inches, while at Malcolm Pait it is 254 inches.

Panchgunnee is 10 miles distant from Malcolm Pait, overlooking the valley of the Wye at an elevation of 4,000 feet. Here the rainfall is only about 50 inches and the climate resembles that of Poorundhur.

Ramandroog is in the Ceded Districts, about 30 miles west of Bellary, with a good road to it, and easy and good ascent to the summit of the hill itself. It is situated at the northern end of the range of hills bordering the western side of the Soondoor Valley. Its elevation is about 3,100 feet above the level of the

sea, and its salubrity undoubted. The first topographical report of the hill was sent in 1846. In 1854 the requisite buildings were sanctioned, and in 1855 Government approved of the European Sick from Secunderabad being sent there, though the distance was 260 miles, (hitherto they had been sent to St. Thomas' Mount, a distance of 400 miles with but doubtful success) and authorized the necessary arrangements being made for the permanent establishment of the Depôt, including the supply of provisions and Hospital servants. The climate is salubrious, the supply of water excellent and abundant, and the temperature 10 to 12 degrees below that of the plains in the very hottest weather. As a Sanitarium for European troops it has been very successful.

Rawul Pindee.—This Station is situated at an elevation of nearly 2,000 feet above the sea level, on the line of communication behind Jhelum and Attock; being seven marches from the former, and five from the latter, and distant from the first range of Hills, on the north, about ten miles in a direct line. It is nearly midway between the Jhelum and Attock Rivers. The Murree Sanitarium is about 42 miles north of Rawul Pindee. The Cantonment is about 1½ miles south of the city, which is populous and extremely filthy. Its site is a low ridge, extending east and west; the sides of which gently slope north and south, facilitating the disappearance of water after the heaviest falls of rain. The soil is deep clay, and not well adapted for vegetation. The crops in the immediate vicinity are poor, but improve towards the foot of the hills. Water of excellent quality is supplied at most seasons of the year from wells near the lines. This Sanitarium is well adapted to invalids from Peshawur who cannot bear such a cold climate as Murree, Dugshaie or Kussowlie. The average mortality ranges from 12 to 45 per 1,000.

Rajmahal Hills.—The report says:—"of late it has been proposed to fix upon sites for European Cantonments in the Rajmahal Hills between Calcutta and Benares, (or more strictly between Taldanga and Sherghotty, on the Grand Trunk Road and the Ganges.) A granitic spur of these hills, Parisnauth,—a famed resort of Jain Pilgrims, stands 188 miles from Calcutta, near the main road towering to the height of 4,233 feet. It is generally considered, however, that the Rajmahal Hills would prove very unhealthy for Troops. Mr. Alexander Grant who became well acquainted with the localities during a long residence at Bhaugulpore, is decidedly of this opinion."

Singhur.—The Hill Fort of Singhur, distant 14 miles from Poona, is placed on a table about 4,200 feet above the sea. It

has an irregular surface with a circuit of about a mile and a quarter. There are 15 private Bungalows usually rented during the hot season by Officers and their families, from the Poona and Kurkee Brigade. The climate of Singhur does not differ much from that of Poorundhur.

Subathoo is a hill station for European Troops about 9 miles from Kussowlie, at an elevation of 4,000 feet. The mortality for ten years from 1846-47 varied from 17 and 19 up to 62 and 76 per 1,000. Subathoo is believed to be one of the least healthy of the hill stations. The hospital is a very superior one. It contains 12 wards, each capable of accommodating 12 men. Each individual has 1,150 cubic feet of space.

Simla is situated 22 miles north-east of Subathoo, and 77 from Umballa. The elevation of the spots which have been occupied by the European residents ranges from 6,500 to 8,000 feet. The houses are irregularly scattered over a narrow ridge of mountains, and on a spur of hills running north at right angles to the Simla range, over an extent of about seven miles. The Station is, in most places, densely wooded with fir, deodar (or Himalyan cedar,) oak and rhododendron, and there is much rank jungle which keeps the surface soil constantly damp. The fall of rain is about 70 inches. The temperature ranges from about 40 in January to about 80 in June.

Dr. Martin's Memo.—Dr. J. R. Martin communicated to the Court of Directors in 1857 his views on the means for promoting the health and efficiency of the European troops serving in India. From 1815 to 1855 there occurred in the Queen's and Company's armies serving in the East Indies, exclusive of casualties, a mortality of about 100,000 men the greater portion of whose lives might have been saved had better localities been selected for military occupation. Estimating the value of a soldier's life at £100, this represents a loss of £10,000,000. Soldiers need not be accommodated in large or costly barracks. Huts for the reception of 10 or 12 men would answer very well on all the mountain ranges. The experience of European campaigns has shown that soldiers who are hutted fare well, while those massed in Barracks and General Hospitals perish at enormous rates. The Himalayahs, Neilgherries and the hills of Ceylon afford relief from fevers and elevate the European above the reach of malaria, but there is always the danger that he may be carried into the region of bowel complaints. If a soldier does not stay long enough in the hills he is liable to a return of his disorders when he reaches the plains again. Mountain air will often prevent diseases, but there are some which it cannot cure, and which a removal to the sea-board or to England

alone will benefit. The question to be solved is at what elevation will a European be removed out of the reach of the malarious fevers of the plains without being carried into the region of bowel complaints. In Jamaica, where yellow fever prevails, the Sanitaria are 2,500 feet above the sea, and the mortality among the soldiers is found to be no greater than in the United Kingdom. Dr. Martin suggests that a Medical officer of health should be appointed for each Presidency who should attend to the whole subject of camps, stations, hospitals; barracks and convalescent stations in as far as they relate to the health and comfort of the soldier. In January 1858 Dr. Martin forwards to the East India House a Memo. by Dr. T. E. Dempster, on the selection and improvement of localities for cantonments on the plains of Hindostan.

Dr. Dempster's Memo.—The examination of localities for cantonments, &c. during the cold season is frequently fallacious. Ground that appears dry and clear then may during and after the rains be an extensive and hardly drainable marsh, covered with vegetation and long continuing between dryness and moisture. The ground may be quite dry and suitable itself, but from its vicinity to jheels a malarious atmosphere may be constantly arising. In some cases the ground may be all that is required, but a nullah, which seems like an ordinary outlet for the water of the country, may periodically overflow its banks and leave the seeds of malaria behind it. In hilly regions the selection of ground becomes still more difficult and complicated. When the physical characteristics of a locality have been ascertained a number of the people should be interrogated as to the salubrity of the place and their answers compared. Good drinking water is a material consideration. There is one test which Dr. Dempster considers almost infallible, and that is to ascertain the proportion of the natives, particularly the young, affected with chronic enlargement of the spleen. The number of cases will bear a distinct relation to the intensity of the malarious influences to which they have been subjected. Cities and cantonments in the immediate vicinity of large, low banked rivers, are not healthy. Such places are Dinapore, Ghazeepore, Cawnpore, Allahabad and Agra. Where the cantonments are at a safe distance from the river as in Meerut, Umballah, &c., they are healthy.

Minute by Sir Bartle Frere, dated 21st January 1860.—The proceedings should be reported Home at once and the Sanitary measures carried out. The new Sanitaria recommended should be tested, and the old ones improved and more extensively used. The local Governments should be communicated with and

further information collected. As regards Bengal the attention of Government should be drawn to the elevated portion of high lands bounding Bengal on the West from Rajmahal to the sea, including such spots as Parisnauth and Hazareebaugh. There is still much want of clear and accurate information as to what is required in a good military Sanitarium. The question is not purely medical. Unless it can be made easily accessible the best climate is of little value as a military Sanitarium.

The Report concludes with the letters from the Military Department to the local Governments requesting further information and conveying instructions as to the use to be made of the information already attained.

THE NAVIGATION OF THE GODAVERY.

Parliamentary Returns.

1859.

In January 1860 the House of Commons called for a return of the correspondence on the navigation of the Godavery River. Captain Haig's letter to the Secretary of State and Sir Charles Trevelyan's minute on the subject are published in the form of a blue book. Captain Haig's letter was written in September 1859 shortly before his return to India.

The Godavery Valley, comprehending the greater part of the Nagpore territories, and a large portion of the states of the Nizam of Hyderabad, forms part of the great plane which slopes with a gentle incline from the Western Ghauts to the shores of the Bay of Bengal. It has an area of 130,000 square miles, or about four times that of Ireland. The line of least descent in it, in a direction from west to east, is that which follows the course of the Wurdah to its junction with the Godavery, and thence the latter river to the sea. This is the line of navigation which it is proposed to open. It has its upper terminus at Natchengaum, an important cotton mart, 60 miles south-west of Nagpore, the head-quarters of the province, and 30 miles east of Oomrawuttee, the principal commercial town of Berar. It passes within 15 miles of Hinginghat, the chief emporium for

the cotton which now goes northwards, *viâ* Mirzapore, to Calcutta, and close to the important towns of Woony and Chandah. It runs, in fact, for 100 miles through the finest cotton fields of India, and may be said to direct its course in a very direct line from the chief cotton centre of the Peninsula to Coringa, the best and safest port on the eastern coast.

The length of river is 500 miles. Its slope 15 inches per mile from the sea up to Hinginghat, 440 miles; the remaining 60 miles having a greater declivity.

The inclination of its bed is not uniform, being interrupted at three points by remarkable barriers of rock, which form rapids which are only navigable in floods. The first of these, 10 miles in length, occurs at a point 150 miles from the sea; the second, 14 miles long, at 220 miles; and the third, 36 miles long, at 310 miles from the sea. These points excepted, there is sufficient water in the river for navigation during nine months of the year, for steamers drawing from 2 to 4 feet of water, according to the state of the river. The flood season comprehends the five months from July to October, during which boats may at times draw as much as six or even 10 feet. During half the year the current is about 1½ miles per hour. At times it varies between this and three miles, excepting in extreme floods, when, at a few points, and in the middle of the stream, it is as much as six miles; but the river never continues in this state for more than a few days in the year.

After a careful and repeated examination of the whole line, a project was in 1856 drawn up for removing all the natural impediments to the navigation. Its estimated cost is 292,000*l.*, or for 473 miles of river, above the weir at Dowlaisaram (40 miles from the sea), 618*l.* per mile. An additional 300 miles of the other tributaries would also be rendered available for navigation by the same works during four to five months of the year. The means proposed for the removal of the obstructions caused by the barriers are lateral canals with locks, similar to those in rivers of like character in other countries. The project, after careful scrutiny, received the unqualified assent of the Madras Government, and, on their strong recommendation, was adopted by the late Court of Directors, and ordered to be carried into execution. The outbreak of the mutiny in 1857, and the consequent stoppage of all public works, led to its postponement. In order to bring the river into use as soon as possible temporary expedients were resorted to, but they left the communication in a very imperfect state.

Importance of the Work.—The interest of the capital required for opening up the Godavery is not more than is now spent in

the rude and wasteful mode of transporting military stores. The importance of the Godavery in a military point of view has almost been lost sight of. When the effectual military occupation of the country has become a necessity, it is time that the claims of the Godavery as a great highway for the safe, speedy and cheap transport of troops and the munitions of war should be attentively considered.

Practicability of the Undertaking.—The three points to be considered are, whether the slope of the bed of the river is such as to allow of boats ascending and descending it with safety and economy; the depth of water available for navigation; and the nature of the obstructions, whether they are such as art can remove or has removed on other rivers.

The slope of the Godavery gives a current of 1½ miles an hour, a velocity easily overcome by ascending boats, less than that of the St. Lawrence, nearly the same as that of the Alabama, less than that of the Loire, and only one-third that of the Rhone. The depth of water is sufficient, during the five monsoon months, for boats drawing from three to five feet. During the next four months the depth diminishes to two feet.

The rocky obstructions are precisely the same as those met with in the rivers of America and Europe, and the means proposed for avoiding them are the same as those which have proved successful in many other instances. Parallel cases to the Godavery are to be found in the rivers of America. On the St. Lawrence, the Mississippi and the Ohio are barriers of rock resembling those on the Godavery, equally formidable in their natural state, and equally prejudicial to navigation. At Louisville the Ohio falls 25 feet in a distance of two miles over a bed of rock. A Company was formed, whose shares were afterwards purchased by the Government, a lateral canal cut, and locks built at an expense of 1,000,000 dollars, and in twelve years the receipts from tolls repaid the whole of the capital with interest. The Godavery can be made use of for only nine months of the year. But this is the case with most of the navigable rivers of the world, notably so with those of America, which nevertheless carry by far the greater part of the traffic of the country, and that at prices which the railways cannot compete with, except at great loss.

Cost of Carriage by Railway and River.—The idea is prevalent that the Railway from Bombay to Berar will be a mode of transport superior to the river, that it will in the end absorb the whole of the traffic in cotton, and altogether supersede water communication. Captain Haig compares the two modes of transport. "In a lecture delivered before the Bombay Mecha-

nics' Institute, Mr. Berkley, chief engineer of the Bombay and Nagpore line, than whom there could be no better authority on the subject, stated that the Company expect to carry cotton at $2\frac{3}{4}d.$ per ton per mile. Nagpore is distant by this line 560 miles from Bombay. A ton of cotton carried thence will consequently cost $560 + 2\frac{3}{4}d. = 128s. = 0{\cdot}68d.$ per lb. Oomrawuttee, the great centre of the finest cotton country, is distant from Bombay by the same line 465 miles. The cost of carrying a ton of cotton at the same rate from that point would therefore be $465 + 2\frac{3}{4}d. = 106s.$, or $0{\cdot}57d.$ per lb. Now, the present cost of transport from Berar to Bombay by the rude native method is 0·60 penny per lb., and the losses, from deterioration of the article on the road, interest during the long and tedious journey, and other drawbacks incidental to the system of conveyance, are stated by Mr. Hyde Clarke, the railway advocate, to amount to another $\frac{1}{4}d.$ per lb., making the total cost of transport, at present $0{\cdot}60 + 0{\cdot}25 = 0{\cdot}85d.$ per lb.

Proposed railway rate	...	$0{\cdot}57d.$ „
Saving by railroad	...	$0{\cdot}28d.$ „

or say one farthing per lb.

This is the whole amount of advantage to be expected, on the railway authorities' own showing, from the introduction of their system.

But the possibility of a charge of even $2\frac{3}{4}d.$ per ton per mile, depends upon the railway securing a monopoly of the whole traffic in cotton, whereas it can easily be shown that the Godavery, if opened, and fed by small branch lines in Berar, would inevitably, from the low rate at which it would carry, absorb not only the whole of the cotton, but by far the greater part of the exportable produce of Berar and Nagpore; in fact, the suppression of this line of navigation would be essential to the very existence of the railroad; for if this outlet to the coast is made it would drain the railroad dry."

With a charge of $2\frac{3}{4}d.$ per ton per mile, and an expenditure of $5\frac{1}{2}$ millions on the railroad, the saving in the cost of conveying cotton will be only one farthing per lb., whereas a reduction of at least $\frac{1}{2}d.$ per lb. is required to afford effectual and permanent relief to the trade. In America cotton is produced for $3\frac{1}{2}d.$ per lb. and carried to port, 470 miles, for 1-9th of a penny per lb. being $3\frac{1}{2}$ per cent. on the cost of production, whereas in Berar it costs $1d.$ per lb. in production, and is carried for $0{\cdot}57d.$ per lb., being 57 per cent. on the cost. The natural slope of the cotton country round Oomrawuttee is towards the sea on the East. Oomrawuttee is about as far from

Bombay as from Coringa at the mouth of the Godavery. A ton of cotton going to Bombay by rail must first ascend 2,000 feet to pass the Western Ghauts, and then descend 3,000 to the port. Both the ascent and the descent necessitate the construction of expensive railway works.

But cotton is not the only product of this rich valley. Indian corn, millet, peas, beans, rice, sugar, hemp, flax, oil seeds, chillies, safflower are all grown there. These products cannot bear a high rate of carriage. The following table shows the difference between India and America as regards the cost of production and carriage of a few staple products.

	AMERICA (WATER.)				INDIA (RAIL.)			
———	Cost per Ton.	Cost of Carriage per Ton per Mile.	Cost of Carriage per Ton for 500 Miles.	Cost of Carriage per cent. of Prime Cost.	Prime Cost per Ton.	Cost of Carriage per Ton per Mile.	Cost of Carriage per Ton for 500 Miles.	Cost of Carriage per cent. of Prime Cost.
	s.	*d.*	*s.* *d.*	*Per cent.*	*s.*	*d.*	*s.* *d.*	*Per cent.*
Wheat	140	¼	10 6	7½	40	1½	62 6	156
Indian corn. ...	75	⅛	8 4	11	Millet. 36	1½	62 6	174
Rice	290	¼	10 6	4	70	1½	62 6	90
Sugar	400	¼	10 6	3	400	2	83 0	21
Hemp	500	¼	10 6	2	140	2	83 0	60
Cotton... ...	930	⅓	14 0	1½	280	2¾	115 0	41
Salt	17	1/7	6 0	35	10	1	42 0	400

The first column in each half of the table shows the price at or near the place of production, not the cost of production.

The case would be much stronger were the comparison extended to distances of 800 and 1,000 miles, such as are met with in the valleys of the Ganges, Indus, and Brahmapootra.

All the Berar and Nagpore cotton does not go to Bombay. Much of it is taken viâ Mirzapore and the Ganges to Calcutta. It is astonishing that with the town of Hinginghat, from which this trade issues, on the Godavery, only 440 miles from Coringa, we have gone on contentedly sending the cotton 460 miles to Mirzapore by land, and then 700 miles by the Ganges to Calcutta. The cost of carriage by this route cannot be less than £11 per ton. If it cost even ¾*d.* per ton per mile to send the

cotton by the Godavery, or £1-7 for the whole distance to Coringa the saving would be so great that it be almost like abolishing the cost of transport altogether. The land route is burdened with tolls. The same duties were formerly levied upon the Godavery, but are now done away with.

Cost of Carriage on the Godavery.—In America the following are the rates of transport:—

On the Lower Mississippi	1-7th	to ¼*d.* per ton per mile.
„ Upper	⅓*d.*	to 7-10th „
„ Ohio	1·5th	to ⅓*d.* „
„ Missouri	4·5th	to 1-1-10th „
„ St. Lawrence	2·5th	to 3·5th „
„ Hudson	⅓*d.*	„

In France—

Rhone ... ½*d.* to 1½*d.* per ton per mile, according to the class of goods carried.

Rhine ... ½*d.* to 1½*d.* ditto ditto

Coals much less.

The average lifetime of a steamboat on an American river is only five years, one-half to one-third what it is in Europe and India. Wages are 13 to 20 times higher than in India. Wood-fuel is about seven times higher in cost.

Taking everything into consideration the cost of carriage on the Godavery ought not to exceed half that on the American rivers, or say from one to three pice, ⅛th to ⅜ths of a penny per ton per mile. The cost by the steamer between Dowlaisaram and Budrachellum, 100 miles, is only ⅝*d.* per ton per mile, though this boat is very ill adapted for goods traffic. On the Rajahmundry canals the contract price for carrying building materials and fuel is only ⅜*d.* per ton per mile. On the Ganges the charge for cotton from Mirzapore to Calcutta is ⅔*d.* per ton per mile. At ⅜*d.* per ton per mile, the cost of sending a ton of cotton by the Godavery from Oomrawuttee to Coringa will be—

	£.	s.	d.
500 miles river navigation at ⅜*d.*	0	15	6
40 miles canal or tramway at 5·8th pence	0	2	0
Transhipment to steamer	0	1	0
Insurance ½ per cent. on 15*l.*	0	1	6
River toll	0	4	0
	£.	1	4 · 0

The cotton would be delivered in Coringa in from 8 to 10 days; the latter time being just that within which the French railways guarantee the delivery of goods for a similar distance. This supposes the construction of a small branch canal or tram-road from Oomrawuttee to the upper terminus of the navigation

at Natchengaum, which would certainly have to be made, and would cost very little, as it is known that the watershed which divides the valleys of the Wurdah and Poornah is very low. A canal will most probably be made and used for irrigation also. This includes also 4*s.* for toll; but the indirect returns to the Government, from other sources, presently to be noticed, will be so great, that it is doubtful whether any toll ought to be imposed.

One pound four shillings, or 24*s.* = $\frac{1}{8}$*d.* per lb. by river, instead of 105*s.* by railway, and 160*s.* by the present route, is the price at which it may with certainty be concluded that the finest cotton of Berar can be brought down to the coast. From Hinginghat, Woony, and Chandah, places still lower down the river, and nearer to it than Oomrawuttee, the price would be proportionably less. The saving on the present wasteful mode of transport would then be 136*s.*, and on the railway 81*s.* per ton. Now, taking the produce of cotton per acre at only 100lbs., and the land-tax at 10 annas, or 1*s.* 3*d.*, the assessment per ton of cotton is 15 × 22·4 = 28*s.*, and the saving resulting from the cheap carriage by the Godavery would be equal to (136-28th) five times the amount of the land-tax in the first case, and (81-23rd) three times in the second. The greater part of this gain would accrue to the producer, and an astonishing impulse would thus be given to the cultivation of this important staple in that district of India which yields the finest quality.

The same with all other kinds of produce. Wheat grown at 40*s.* the ton, and delivered at the port for 50*s.* or 12*s.* per quarter, would immediately become an article of immense export. The same with hemp, flax, oil-seeds, hides, and all the other agricultural productions which constitute the export trade of India. They could be carried to the port at from 10*s.* to 20*s.* per ton, instead of remaining as now locked up in the interior, or not raised at all for want of cheap carriage. Salt, which now costs from 7*l.* to 10*l.*, and at times even 16*l.* per ton in Nagpore and Berar, would be delivered on the river banks at an advance of not more than 10*s.* per ton on the price at the pans, or 3*l.* 10*s.*

Salt costs in Nagpore and Berar, and generally throughout the Deccan £6, £7, £10, and even £16 per ton. By opening the Godavery it could be supplied at £3 to £4, and the consumption would rise from 8 lbs. per head, at which it stands in those provinces, to 20 lbs. per head which is the usual rate wherever the price of the article is moderate. It may be estimated that the Government lose £64,000 annually from delaying the opening of the river in the item of salt alone. The

whole annual charge to Government for improving the river, supposing there were no trade upon it but salt, and that no tolls were imposed, would be

Interest at 4 per cent. on £300,000	...	£12,000
Maintenance at 2 per cent.	...	6,000
		£18,000

The Godavery in a Military and Political Aspect.—Masulipatam is the arsenal whence the great Military stations of Hyderabad and Nagpore derive their supplies of Commissariat and ordnance stores. It is distant by land 216 miles from the former place and 530 from the latter. The journey, by means of native carts carrying 950lbs. each, via Hyderabad to Nagpore occupies between two and three months and is only practicable in the hot weather. The price paid for the carriage of stores to Hyderabad is £4 per ton, and to Nagpore £13·16 per ton. The cost of carriage to Nagpore for 1859 was about £18,350 for cart-hire alone. The total annual expense of rendering the Godavery navigable up to Hinginghat, which is as near to Nagpore as Natchengaum, would be £20,705, including establishments. The cost of transport by river for 460 miles at ⅜*d.* and by road at 4*d.* per ton per mile would be £2,483 for £1,330 tons of stores, the same quantity as would cost by the ordinary means of transport £18,350. Add to this £20,705 the cost of the works and establishment, and there is a total of £23,188, only 25 per cent. more than is now paid by Government for carriage. But this is the result when the whole cost of the works is charged to this one item of Government carriage, a mode of calculation which is manifestly preposterous as a statement of profit and loss. An increase of 25 per cent. in the quantity of stores to be carried would at once equalise the amount annually expended now with the cost of conveyance by the new route including the outlay for works and establishment.

Captain Haig estimates the probable traffic at 200,000 tons. A toll of one rupee or 1-20th pence per ton levied on this would produce £20,000. Colonel Balfour, in a letter to Government dated 4th December 1858, expressed the opinion that besides the saving in the conveyance of Government stores by using the Godavery a strong argument in favour of the scheme was to be found in the preservation of human life that would result from such a mode of transporting troops for long distances. The land route from Masulipatam to Nagpore traverses one of the most deadly jungles in India. This calculation is confined to Nagpore but a similar saving would be effected in the case of Hyderabad if

the Godavery route were decided on in preference to the Kistna. Captain Haig represents that our military hold on the country will be greatly strengthened if the water communication offered by the Godavery is turned to account. Even when the railroad is completed to Bombay in unsettled times the work of a single night may make the portion of the line that passes through an enemy's country useless, whereas the river cannot be injured, and can be more effectually guarded.

The Godavery is the only cheap outlet for the cotton of Berar and the productions of the whole valley; by it a saving to the people on the cost of transport equal to several times the amount of the land tax may be effected; and with this river improved and their country thrown open by its means to the markets of the world the inhabitants of this magnificent tract would be better off with double their present taxation than they are now. The opening of the Godavery is recommended to the Government as a work of urgent state necessity, which cannot be deferred without danger, and as a means of effecting a large and important saving in the military expenditure.

MINUTE BY SIR CHARLES TREVELYAN.—In accordance with the established practice the Governor of Madras recorded in a minute the result of his observations during a tour in the Godavery and Kistna deltas in 1859.

Cocanada.—This town consists of Cocanada proper on the Northern and Jagdesnaikpuram on the Southern side of the river, a branch of the Godavery. The harbour has become silted up, but might be improved by dredging and erecting training walls.

The Canal System.—In the deltas of the Godavery and Kistna the water is first arrested by two enormous weirs, or annicuts; and being thus raised to a commanding level, it is distributed to every part of the deltas. One remarkable feature of this system is, that irrigation and navigation have been perfectly combined. The ordinary case is for the produce which has been raised by means of the supply channels, to be sent to market by means of the main channels; but, sometimes, the grain is threshed and winnowed on the ground, and loaded at once into a boat moored at hand. The navigation of the canals is completed to tide water, without waste of water, by having the last few miles of each on a dead level; and thus, when the whole of the water is required for irrigation, none is allowed to flow into the sea, excepting the small quantity consumed in lockage. The canals are all toll-free, for it has been wisely determined that it is better to take the Government dues

in a consolidated form on the crops, than to harass and mulct the people by exactions which cannot be confined to those demanded on behalf of the public. The irrigable area of the deltas has been variously estimated; but, after making every deduction, it probably amounts to about 11,00,000 acres in the Godavery, and as many in the Kistna Delta.

The Godavery River.—When the cotton, the oil-seed and the grain of Central India are delivered at Cocanada at the prices prevailing on the coast new life will be given to the agriculture of the interior. A large supply of good teak is to be found on one of the principal tributaries of the Godavery.

Masulipatam Fort.—This fort consists of a spacious elevated platform surrounded by a handsome brick wall and ditch, and flanked by bastions at the angles. It is in a very delapidated state and as a military post quite useless. Sir Charles Trevelyan makes the following proposals regarding it.

1st. That the old fort of Masulipatam should cease to be occupied as a military station, and should be appropriated to mercantile purposes;

2d. That the arsenal should be consolidated with the arsenal of Fort St. George;

3d. That the commissariat establishment at Masulipatam should be broken up;

4th. That the arrangements which have been already commenced for the transhipment of military stores into the interior from Cocanada should be completed; and

5th. That a plan and estimate should be framed for laying out the fort of Masulipatam as a commercial entrepôt, with the understanding that the sums realised by the sale of the land will be available, as far as they may be required, for local improvements. These recommendations accord with Sir Patrick Grant's views.

THE

ANNALS

OF

INDIAN ADMINISTRATION.

THE MADRAS FOREST DEPARTMENT.

1859-60.

On the 31st August 1860 Dr. Cleghorn, Conservator of Forests, Madras, submits to Government a report on the results of his third tour.

The requirements of the Railways have tended to thin the Indigenous Forests. Thousands of large Forest trees have been felled in the neighbourhood of the various lines of Railway within the last few years. Scrubby copse and minor forests are affected by the extension of cultivation consequent on the reduction of the land tax and increased facilities of communication.

H. M. Dockyard.—A reference was made from the Secretary of State for India, through the Government of Bombay, as to the possibility of supplying a durable timber called *Aynee* or *Angili* for the Royal Navy. The Officers in charge of the Forests in Canara, Cochin and Travancore, and the Collector of Malabar, were called upon for their opinions as to the size and quantity procurable in the respective districts. The Resident of Travancore believes, that 10,000 loads *per annum* for five years might be supplied at the rate of 12 to 14 rupees per candy, to the great advantage of the Travancore State.

Railways.—The Madras Railway has hitherto used, to a very great extent, the indigenous woods for sleepers. About thirty kinds of timber have been tried experimentally, but the experiment has not been attended with satisfactory results; not always because the woods were worthless, but from the timber not

having reached a sufficient age, and from its being used in a comparatively green state. Experience has been gained and better prospects are dawning on the Company in this great essential of Railway operations. Teak, which is more durable than any description of fir although prepared with creosote, and the best of all wood for sleepers, is considered by the Company too expensive. Sal, the next best, is only procurable in any quantity in Orissa. Jarrah or Yarrah. *(Eucalyptus rostrata)* a wood from Western Australia has been imported into Sind and Ceylon. No wood has yet been found to resist the attacks of white ants combined with exposure to heat and moisture, and the result of the Yarrah experiment is looked for with interest. It has been proposed to substitute sleepers of cast iron for those of wood, and the plan has already been carried out on a large scale; it is thought that iron will in the end be found the most economical material for sleepers.

Seasoning of Wood.—Timber, if expected to endure, must be thoroughly dried by exposure to sun and air; this desiccation may be expedited by first immersing the timber in water and then drying it in a current of air; the importance of ventilation cannot be over-estimated, in fact there are instances where the dry-rot has assailed beams of wood and been arrested by allowing a free current of air to act upon it. Instead of immersing the logs in water, the practice is sometimes adopted of burying them in a dung-hill. This is simply a modification of the steaming process by which the nitrogenous matter is dissolved out. The following modes of preserving timber may also be referred to, *viz.*, the Burnettizing process and that of Mr. Bethell. The former, which consists in charging the wood with a solution of chloride of zinc, appears on the whole to be the best and most practicable. It has been thoroughly tested in Her Majesty's Dockyards, and found to withstand not only the effects of moisture, but the inroads of insects and fungi. The fact that insects and dry-rot are in this country the greatest enemies of timber, is in favor of the chloride of zinc. Mr. Bethell uses creosote, with the object of "coagulating the albumen and preventing putrefactive decomposition." His process has been tested on the Railway. No trees ought to be felled except those which have arrived at maturity. Green wood should never be painted, as the almost inevitable result of this is that the centre is transformed into touchwood.

White ants.—Several expedients have been tried to resist these insects. Yellow arsenic mixed with the paint has been found useful. Gambier composition is still more efficacious. The composition is thus made up. Dissolve 3 pints of gambier in 12 of dammer oil

over a slow fire; then stir 1 part of lime, sprinkling it over the top to prevent its coagulating and settling in a mass at the bottom; it must be well and quickly stirred. It should then be taken out of the cauldron and ground down like paint on a muller till it is smooth, and afterwards returned to the pot and heated. A little oil should be added to make it tractable, and the composition can then be laid over the material; to be treated with a common brush.

Finance.—The following statement shows the financial position of the department at the end of 1859-60.

Financial Results of Conservancy for 1859-60.

Name of Forests	Receipts by the sale of Timber, &c.			Disbursements including the cost of establishment and contingent charges.			Balance in favor of Government.		
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
Anamallai	2,65,953	1	0	22,484	9	4	2,43,468	7	8
Sigur	2,593	3	6	2,147	15	3	445	4	3
Salem	29,482	6	7	4,040	6	6	25,442	0	1
North Canara	2,00,767	13	1	57,664	6	10	1,43,103	6	3
South Canara	8,650	11	7	1,897	11	8	6,752	15	11
Nilgiri Sholas	909	14	0	50	0	6	859	13	6
Total	5,08,357	1	9	88,285	2	1	4,20,071	15	8
Deduct General Charges.									
Pay of the Conservator of Forests, Establishment, Contingent charges, &c.							21,722	12	3
Actual Profit							3,98,349	3	5

The Neilgherries.—Rules were issued, and approved of by Government, to regulate the felling of timber in the neighbourhood of Ootacamund. Suitable woods at a distance from the station are to be selected and marked out in lots of moderate size, and these lots to be sold annually. The contractor may clear his lot entirely, with the exception of such trees as may be marked by the Conservancy Department previous to the sale; the cleared lots to be planted, as required, by the Department. No private felling of any kind, or for any person, to be allowed in woods or on land belonging to Government.

Teak.—The most important Teak plantations are the "Conolly plantations" in the Ernad Talook. In 1859-60 the income for the first time exceeded the expenditure, being Rs. 5,165 against an outlay of Rs. 3,493. The average growth of Teak

as ascertained by Dr. Brandis of Rangoon, and confirmed by Dr. Cleghorn's observations, is

10	years	growth,	18	inches at 6 feet from ground.
22	„		3-6	„ „
37	„		4-6	„ „
62	„		6	„ „
93	„		7-6	„ „

Tea.—Southern India promises well to afford favorable sites for the growth of Tea. Numerous experiments have been made and attended in several instances with marked success, as regards the healthy growth of the plant. In order, however, to complete the experiment and allow the Tea grown in the Presidency, to occupy its proper place in the market, it is necessary that the art of manufacturing it, should be introduced either direct from China or from Government Plantations in the North Western Provinces. Unless something of this kind be done, Tea grown in Southern India, cannot attain that commercial value which it might probably acquire, were it generously taken up. The Tea shrub is remarkable for its hardiness. The cultivation extends over a great breadth of latitude. It prefers a climate where the mean temperature is from 67° to 73°. This valuable plant may be seen at several places on the Nilgiri and Pulni Hills, in Coorg, on the hill sanatarium of Nundidroog, on the Shervaroy and Bababooden Hills, at Curtallam, and in various parts of Travancore. Although Tea plants have been introduced and are growing at each of these localities, they are not all equally promising, and the place in the market which any of them is to occupy has not yet been ascertained, and cannot be so until the introduction of competent manipulation completes the experiment.

Potato.—It is of great importance that the cultivation of the Potato be carefully attended to, and soils best adapted for its healthy and vigorous growth selected. In Bengal, for the last six or seven years, this esculent has been deteriorating, and it was found necessary to apply to this Presidency for a supply of seed Potatoes, the tubers being larger, firmer and of better flavor on our mountain ranges, than in the Sikkim Himalayas.

The cultivation is rapidly increasing in Mysore and on the Nilgiris, and the demand for them is not confined to the Europeans, although at first they are not relished by the Natives; in a short time the taste is developed and they are prized, not only because they are palatable and nutritious, but because they are profitable.

Manual of Indian Botany.—Dr. Cleghorn mentions that such a work is in course of preparation.

REPORT OF THE

CALCUTTA MUNICIPAL COMMISSIONERS.

1860.

ON the 1st of March 1861 the Municipal Commissioners of Calcutta submit their report on the operations of the year 1860, the fourth of their incumbency.

The work of valuing and assessing the houses went on. The whole of the Southern division having been re-valued and assessed within three years, it was not necessary to revise its valuation during 1860, but the constant complaints about high rents and the scarcity of houses induced the Municipal Commissioners to call for returns from the European quarter of the town. The result shows that almost every house, except those let on lease, paid a considerably higher rent in 1860 than it did three years before, the increase amounting in some instances to 100 per cent. In the business part of the town most of the small holdings, held from year to year, paid nearly 200 per cent. more than three years before. The larger premises, being held on long leases, did not exhibit such a marked increase. In effecting the revision of valuation and assessments 6,705 notices were served on landed proprietors. Only 148 persons determined to appeal from the decisions; of these 10 withdrew their objections, 37 obtained a reduction and in 101 cases the decision of the Municipal Commissioners was upheld. The total assessment showed an increase of Rs. 24,850. In 1857 the assessment amounted to Rs. 4,91,148, while in 1860 it amounted to Rs. 5,55,105, showing an increase of Rs. 63,957.

Finance.—The total income from all sources except the lighting rate, amounted to Rs. 7,65,729 against an expenditure of Rs. 7,28,279. This income however includes a sum derived from the sale of some Company's paper, a part of the proceeds of which is included in the expenditure. The actual legitimate income was Rs. 7,26,700. The total disbursements include a sum of Rs. 2,11,000 assigned to the new drainage account, Rs. 30,100 to Water Supply account besides other sums amounting altogether to Rs. 2,52,122, which leaves a balance of Rs. 4,76,157 as the actual expenditure for the conservancy of the

town. As compared with 1859 the expenditure shows an increase of about Rs. 1,20,000.

House Rate.—The amount of the bills issued was Rs. 5,55,127, being an increase of Rs. 19,443 over the previous year. The unrealised bills amounted, at the end of 1859, to Rs. 50,253; of this amount Rs. 45,621 was realised during 1860. The amount collected by process was Rs. 28,680, being an increase of four hundred per cent. in four years.

Lighting Rate.—The amount of the bills issued was Rs. 1,36,082 against Rs. 1,30,640 in 1859. The receipts amounted to Rs. 1,88,976, and the disbursements to Rs. 1,62,519. The number of additional gas lamps put up during the year was 183. The number of new oil lamps added was 45, all in the Northern division. The total number on the 31st December was 805, of which 476 were in the Northern and 329 in the Southern division. Altogether there were 777 lights in the Southern and 794 in the Northern division. The latter has no reason to complain, especially as most of the buildings and lands exempt from lighting rate are situated in it. Native gentlemen residing in their own houses are beginning to appreciate the advantages of gas and to introduce it into their dwellings.

Carriage and Horse Tax.—The amount of Bills sent out was Rs. 84,535, showing a decrease of Rs. 568. A sum of Rs. 3,507 was collected by process. The number of hackeries registered during the year was 3,368 and of ticca gharries 1,549.

Licenses.—The receipts from this source were Rs. 3,506, of which Rs. 1,402 was for building licenses. This shows a falling off of Rs. 553, chiefly in the illumination fees.

Dangerous and Offensive Trades.—By Act XIV. of 1856 the Commissioners were empowered to register all trades which could be considered to fall under this denomination, such as straw depôts, melting houses, soap manufactories, wood depôts, oil boiling houses, &c. Beyond registry and inspection they have no control over these trades. The number of such trades registered up to the close of 1860 was 2,236, of which 1,425 were wood depôts, 269 dying houses, and 200 straw depôts.

Fines.—The amount of fines levied for infringement of the Municipal Laws was Rs. 2,960.

Public Roads.—The Report says:—"notwithstanding all the complaints which have been made, it is an undeniable fact, that during the last year a larger extent of roads has been relaid or repaired than for many years past; and that the amount expended for that purpose greatly exceeds any similar expenditure on record in the books of the Department; in fact at no other period have strenuous efforts been made for upholding the priority of

the claim of the Town to stone ballast imported from abroad, and for maturing plans, by which, in lieu of khoah, a better description of road metal could be secured for the requirement of this Metropolis." The roads are repaired either by imported stone broken up in Calcutta, or khoah, broken brick. The importation of stone ballast has greatly fallen off of late years. The demand for it is now so great that it commands a price in the market whereas it was formerly supplied gratis. Calcutta requires about 200,000 tons of stone metal, whereas only 20,299 tons were available during the year under report. The extent of khoah roads repaired during 1860 amounted to 872,878 feet, being an excess of 352,959 feet over the previous year. In stone repairs there was a falling off. Against 585,381 feet in 1859 only 389,474 feet were repaired in 1860. But the aggregate is in excess of that for many years past, being 82 miles 1 furlong and 23 poles. The whole of the streets and lanes of Calcutta extend over an area of 109 miles. The average cost of constructing roads was:—

Stone roads Rs. 12 -9-7 per 100 cubic feet.
Khoah roads „ 7-13-0 „ „

Watering of Public Streets.—Forty-six streets of the town covering a distance of 16½ miles were watered at an average monthly expenditure of Rs. 1866. Wherever the residents in a street with no supply of water within convenient distance offered to bear a moiety of the expense of watering their wishes were acceded to. Fourteen new water carts were added. Iron water carts were tried but did not answer.

General condition of the Town.—Comparing the relative population of the two divisions with the returns they yield, it appears that the inhabitants of the Northern Division pay in rates and taxes 10 annas 3 pie a head per annum, those of the Southern pay Rs. 2-7-3, or nearly four times as much. The Municipal Income is almost absorbed by current expenses and little is left for improvements, but some were nevertheless effect during the year. Jaun Bazar was opened up and Hill's Lane improved. Foot paths were commenced in several streets.

Covered Colonnade.—Some means of enabling Europeans to walk short distances protected from the sun and rain is much wanted in Calcutta. The Trades Association recommended colonnades of corrugated iron as best suited to the requirements of the town. Messrs. Hamilton and Co. of Liverpool offered to supply iron on reasonable terms. As an experiment it was agreed to erect a colonnade of 70 feet long, in Old Court House Street, at a cost of Rs. 1,500, one-third of which would be paid by Messrs. Hamilton and Co. of Liverpool, one-third by a pri-

vate party before whose premises the colonnade would be erected and the remaining third by the municipal funds.

Other Improvements.—Several drinking fountains were erected and were much resorted to by the natives. The street boards were altered and cast iron plates with white letters on black ground substituted for the old ones. The numbers of houses were also painted in large letters at the gateway. The practice of showing the names of occupiers of offices and houses on a board at the entrance gate was generally adopted.

Statistics of the Town.

Population.—The number both of Christians and natives increased during the year. The increase of Christians (including 347 native Christians) was estimated at 1,041 and of natives at 5,780 by the lowest computation.

Influx of Europeans.—The total number of arrivals during the past year was as follows:—

By the overland route, *viâ* Suez	1,803
„ other steamers and sailing ships ...	1,347
„ Railway trains, 1st class passengers ...	11,705
„ Inland steamers	207
Total ...	15,062

The departures on the other hand were:—

By the overland route	1,599
„ other steamers and sailing ships ...	800
„ Railway trains, 1st class	11,298
„ Inland steamers	677
Total ...	14,374

Deducting, therefore, the departures from the arrivals, there is an apparent increase of 688 persons to the fixed European population. The 2nd class Railway passengers amounted to 41,097 arrivals and 37,125 departures, showing an increase of 3,972 persons. These returns include of course a large number of respectable natives.

Marriages.—The number of marriages contracted among Europeans, during the past year, was 119, being 3 more than within the corresponding period of 1859. This return, however, includes the suburbs of Calcutta.

Births.—During the year under review, there were born 216 European children. Of these 117 were boys and 99 girls, and 11 were still-born. The greatest mortality among children oc-

curred in the months of March and April, and the prevalent cause of death throughout the year was convulsions, not less than 48 children having died thereof during the period under review.

Mortality.—The total number of deaths recorded was 929, which is 5 less than in the preceding year. Of these 580 were males and 349 females. They comprised—

631 Protestants, 263 Roman Catholics, 34 Armenians, and 1 Greek, who died of the following causes:—

130 of Fever, 219 of Cholera, 98 of Dysentery, 25 of Diarrhœa, 13 of Dropsy, 48 of Convulsions, 29 of Consumption, 2 of Small Pox, 4 of Measles, and 361 of various diseases, which latter number comprises 15 persons drowned, 1 burnt to death, 1 who committed suicide, and 11 infants still-born. Of these—

281	died	under the age of 10 years.				
75	„	between the age of	10	and	20	years.
201	„	„	20	„	30	„
154	„	„	30	„	40	„
88	„	„	40	„	50	„
56	„	„	50	„	60	„
32	„	„	60	„	70	„
26	„	„	70	„	80	„
12	„	„	80	„	90	„
4	„	„	90	„	100	„

The greatest mortality occurred between the age of 20 and 30, and was caused by cholera, fever, and dysentery. The greatest number of deaths during the past year occurred in the months of March, April, and May, whilst in the preceding year, the greatest mortality took place in January, May and July; in both periods the prevailing causes of death were the same, namely cholera and dysentery. The mortality among natives, during the past year, was greatly in excess of that in the preceding year, the number of deaths being 17,774 against 13,942 in 1859. Of these 13,002 were Hindoos, and 4,772 Mahomedans. The ascertained causes of death were,

From Small Pox ...	39 Hindoos.	
	25 Mahomedans.	
„ Cholera ...	4,255 Hindoos.	
	2,298 Mahomedans.	
„ various diseases	6,705 Hindoos.	
	2,449 Mahomedans.	

whilst 2,003 Hindoos died in hospitals, though the statement from which these details are taken, furnishes no information as to the causes of death. In comparing the causes of mortality among the native population, and number of deaths during the year under review with those of 1859, it would appear, that the increase has almost entirely been caused by cholera, and that this epidemic has committed its ravages among both Hindoos and Mussulmans. The real extent of ravages committed by this terrible scourge must remain a mystery, since, according to the returns, out of 17,774 persons, not less than 9,154, or more than one-half, are stated to have died of "various diseases," whilst 2,003 were removed "from hospitals." The importance of such details becomes more obvious, if it be considered that, whilst the mortality among Christians was actually less than in the preceding year, that among natives is more than 25 per cent. in excess, whereas, if such diseases are in any way to be ascribed to atmospherical or other influences, the same causes would, in all probability, have told with greater effect upon Europeans.

Meteorological Observations.—The mean temperature of the air and quantity of rain, as compared with the previous year, was as follows:—

	1859.		1860.	
	Therm.	Rain.	Therm.	Rain.
January	69·1	0·00	66·3	0·00
February	74·6	0·66	75·8	0·09
March	78·7	4·23	82·6	0·00
April	84·5	1·29	84·9	2·47
May	86·1	3·18	88·7	2·21
June	84·4	12·48	84·9	6·46
July	85·4	9·09	83·9	17·92
August	82·6	21·22	83·6	14·65
September	83·5	11·55	83·4	7·13
October	81·5	4·96	81·9	1·68
November	74·3	0·00	75·5	0·00
December	68·7	0·00	67·2	0·00

The following table shows how many hours each wind blew:—

Direction.	N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.	Calm.	Not observed.
Hours.	1080	332	612	766	2540	830	544	623	43	142

Comparing the foregoing returns with the number of deaths within the same months, it will be observed, that in February, May, and June, when the mean temperature was much higher than in the preceding year, and the quantity of rain fallen much smaller, there was a considerable decrease in the number of deaths, whilst in April, with the same temperature, but a greater fall of rain, the mortality was much larger. The highest mortality occurred in the month of March, when during the past year the mean temperature was 4 degrees in excess of the previous year, with no rain whatever. The months of September and October, however, present the very opposite result, for, whilst during the past year the mean temperature was higher and the fall of rain less than in 1859, the number of deaths was much greater.

Street Traffic.—In 1850, when the carriage and horse tax was in force, there were 1,391 hackeries or bullock-carts plying for hire in the Town, whilst during the past year the number of similar vehicles was 3,368, being an increase of *one hundred and forty* per cent. This is exclusive of the number of hackeries that may be registered and kept within the suburbs, where we have no doubt the increase will be found to be in similar proportion.

Comparing the number of every description of vehicles liable to the tax, as well as of animals kept in 1850 with that during the year under review, the following result is obtained.

	1859.	1860.
Four and two-wheeled carriages, ...	3,229	4,168
Hackeries, ...	1,391	3,368
Horses, ...	3,276	3,750
Ponies, ...	2,003	2,307
Bullocks, ...	2,782	6,736
	12,681	20,329

Water Supply—The Chandpal Ghaut Engine worked during the year 3,766 hours, and pumped up 2,094,700 tons of water, being equivalent to 469,212,800 gallons. The total expense was Rs. 11,281-4-10, and the cost of the water about 4 annas 9 pie per 10,000 gallons.

The Report concludes with bringing to the notice of Government the necessity for an amendment of the municipal acts, and suggests the alterations and improvements that would be desirable.

DANVERS' SECOND REPORT ON RAILWAYS IN INDIA.

Parliamentary Papers.

THIS report is dated 1st May 1861 and refers to the state of Indian Railways during 1860.

On the 1st of January 1860, 634 miles of railway were open for traffic. By the end of the year 208 more were completed, making in all 842 miles open, of which 100 were double and 742 single. The most important section completed was that between Cynthea and Rajmahal. After the 1st of January to the latest advices received, 211 miles more were opened, on the Great Indian Peninsula, the Madras and the Bombay and Baroda lines, making the total length of line open to the date of the report 1,063 miles. No new lines were sanctioned during 1860. The operations of the Oude Railway Company were suspended and the amount expended returned by Government. The extent of line in course of construction was 2,932½ miles, of which it was expected that 1,353½ would be opened during 1861, and nearly all the rest during 1862.

The quantity of materials sent out from England during 1860 was 234,710 tons, valued at £2,140,703. The number of persons employed on the open sections of railway on 1st October was 18,789, of whom 1137 were Europeans.

A scheme was under consideration for introducing a line of Railway into the Guicowar's territory in connection with the Bombay and Baroda line, and for bringing the French town of Karricall on the coast of Madras into communication with the Great Southern of India line. Both projects were favourably looked upon but nothing was definitely settled.

Financial position of the Railways.—The sum required for the completion of all the lines is from 55 to 56 millions sterling, instead of £52,430,000 as was previously estimated. At the

end of 1860 £32,845,747 was raised by the several Companies, and £31,171,353 expended. On the 30th April 1861, the end of the official year, £34,396,445 was raised and £34,042,128 expended. The Companies had only a sum of £354,317 at their credit on that date, and Government made advances to some of them to the extent of £682,000. For the expenditure of 1861-62 a sum of £8,000,000 is wanted, of which 2,000,000 will be expended in England and 6,000,000 in India, being distributed among the railways in the following proportions;— The East Indian £3,055,841; Madras £1,109,793; Great Indian Peninsula £1,662,832; Scinde £211,950; Indus Flotilla £90,583; Punjab £341,677; Bombay, Baroda and Central India £595,000; Eastern Bengal £571,649; Calcutta and South Eastern £124,633; Great Southern of India £141,058. The money spent on Indian railways may be placed under three divisions:—

1st. Share or Stock Capital.
2nd. Debentures.
3rd. Advances by Government.

The first consists of capital raised by means of shares, and subsequently converted into stock, the holders being parties to the contracts with the Government, under which a certain rate of interest is guaranteed upon certain conditions. The second consists of sums borrowed for certain periods, the repayment of the same and the interest thereon being guaranteed by the Government of India. These again are divided into two classes, viz., debentures which may be converted into an equivalent amount of guaranteed share capital at the option of the holders, and those which are not convertible, but which must either be paid off or renewed as they expire. They vary also in the mode of transfer, some being registered, and others being transferable from hand to hand. Although in the shape of a loan, the sums raised by means of debentures do not provide for a temporary want, but are absolutely sunk in the undertaking, and are to all intents and purposes so much capital.

The following table shows the capital required by each railway, the amount authorized to be raised, the amount raised, and the amount expended:—

Railway Company.	Amount estimated to be required for each Undertaking.	Amount authorized to be raised with the Government Guarantee.			Amount raised in England to 30th April 1861.		Amount raised in India to Date of latest Advices.	Total raised 30th April 1861.	Total Amount advanced to Companies for Expenditure to the 30th April 1861 (partly estimated).
		By Share Capital.	By Debentures.	Total.	By Shares.	By Debentures.			
East Indian :	£	£	£	£	£	£	£	£	£
Main Line ...	20,750,000	14,332,540	6,417,460	20,750,000	9,213,025	4.651,970	237,426	14,102,421	15,835,867
Jubbulpore Line	2,250,000	2,000,000	.....	2,000,000	1,951,910	.....	7,490	1,959,400	
Madras :									
Main Line ...	8,500,000	3,000,000	2,000,000	5,000,000	2,983,362	842,900	.....	3,826,262	5,044,128
Bellary		1,000,000	.....	1,000,000	962,475	.....	.....	962,475	
Great Indian Peninsula	12,000,000	8,000,000	833,300	8,833,300	6,232,485	511,200	349,856	7,093,541	6,724,603
Sind	1,400,000	1,000,000	333,000	1,333,000	975,535	333,000	23,409	1,331,944	1,379,862
Punjab :									
Moultan to Umritser	2,250,000	1,500,000	.....	1,500,000	1,157,319	.....	5,736	1,163,055	812,481
Delhi to Lahore	2,500,000	.....	.....	.....	... .	.....	.....	.....	.....
Indus Flotilla ...	300,000	250,000	83,000	333,000	249,755	3,500	.....	253,255	244,762
Bombay, Baroda, and Central India	3,500,000	2,450,000	550,000	3,000,000	1,709,469	432,400	21,251	2,163,120	2,527,035
Eastern Bengal ...	1,400,000	1,000,000	400,000	1,400,000	809,853	1,300	7,146	818,299	744,564
Calcutta and South-Eastern	280,000	250,000	50,000	300,000	233,035	.. ..	16,418	249,453	259,569
Great Southern of India	550,000	410,000	90,000	500,000	412,500	59,500	1,220	473,220	469,257
Total	55,680,000	35.192,540	10,756,760	45,949,300	26,890,723	6,835,770	669,952	34,396,445	34,042,128

Taking the estimate of 55,680,000*l.* as the sum requisite for the completion of the railways which have been sanctioned, but which, it should be observed, is pronounced by some of the Companies to be excessive, about 14,000,000*l.* remains, exclusive of the 7,000,000*l.* or 8,000,000*l.* required ultimately for suspended works, to be raised for the lines in course of execution. The expenditure of this sum will be spread over 1861 and the next three or four years; and, looking to the progress made in some lines, and to the expected completion of a considerable addition within the next twelve months, it will probably be distributed as follows:—

		England.	India.
In 1861-62	... £8,000,000	... £2,000,000	... £6,000,000
„ 1862-63	... 4,000,000	... 750,000	... 3,250,000
„ 1863-64	... 1,500,000	... 300,000	... 1,200,000
„ 1864-65	... 500,000	... 100,000	... 400,000

But before the arrival of the year 1864, it will have to be considered whether the postponed works, as well as the extensions of the Great Southern and the Eastern Bengal Railways, should not be commenced. If this question is decided in the affirmative, the expenditure would be raised to, and maintained at, from two and a half to three millions a year for that and the three following years.

Guaranteed Interest.—On the 31st December 1860 the amount of guaranteed interest paid by Government was £5,299,709. The amount of net profits to be set off against this amounted on the 30th June 1860 to £880,331. The earnings for a year were then £318,310. On the 30th June 1861 they were expected to be £400,000.

Railway Exchange.—Regarding the rate of exchange fixed by contract between the Government and the Companies the Report says:—"It was explained in the former Report that the railway capital is principally raised in this country, and paid into the Government treasury in London, and that the sums required for the expenditure in India are advanced by the Government from the local treasuries. When the contracts between the Government and the Railway Companies were executed, it was considered desirable to fix the rate of exchange at which these advances should be made. The first contract was entered into in 1849, when silver was cheaper than it is

now, and when the prevailing rate of exchange was more in favour of this country. That fixed upon was 1*s.* 10*d.*, and by this rate all the transactions between the Government and the Railway Companies are regulated. The rate of exchange has now risen to 2*s.* or upwards; the consequence is that for every 100*l.* which the Railway Companies pay into the Government treasury in this country for expenditure in India the Government advances, in rupees, an amount the equivalent of which at 2*s.* is about 109*l.* The repayment of the advances made by Government on account of the guaranteed interest is subject to the same arrangement. The profits of the railways as they accrue are, under the contracts, paid into the Government treasuries in India, and although the exchangeable current value of the rupee may be 2*s.*, they are converted into sterling at 1*s.* 10*d.*, the Government being entitled to retain the difference. The extra amount which the Government are now advancing will, accordingly, be gradually recovered, should the present rate of exchange continue or increase (either of which is probable), and should the railways work at a profit. For instance, the Government this year will probably advance Rs. 6,00,00,000 to the Railway Companies in India, and the Railway Companies will only be debited with the sum of 5,500,000*l.* in this country, which is 500,000*l.* less than would have been charged against them had the transaction been regulated by the rate of 2*s.* On the other hand, the Government, it is calculated, will receive into the treasuries in India a sum of Rs. 40,00,000 on account of the net profits of the railways, but a sum of 366,666*l.* only will be credited to the Companies in reduction of their debt to the Government for the guaranteed interest. This process will go on for some time. The advances on account of capital will of course cease when the lines are completed. The Government will continue to receive all the profits of the railways in rupees, and, after converting them into pounds sterling at the fixed rate of 1*s.* 10*d.*, will in the first instance apply the amount so produced to the payment of the guaranteed interest. If the profits should amount to more than 5 per cent., half the excess will be applied to the repayment of the sums advanced for guaranteed interest in former years, and half paid to the shareholders in addition to the 5 per cent. It is difficult to estimate which will have profited most by the arrangement, when the accounts between the Companies and the Government are closed; but the probability is, supposing the existing rate to continue, and the lines to be profitable, that the profit and loss of each will ultimately be nearly balanced."

Shareholders.—The number of shareholders increased from 15,224 to 17,118, of whom 679 were registered in India, 336 being natives.

Traffic Operations.—Although the statistical statements exhibit satisfactory results as regards increased traffic, and indicate an improved policy with respect to the regulation of fares and the adaptation of the railways to the peculiar circumstances of the country, their remunerative powers cannot safely be determined until the lines are completed from end to end, and are in fair working order. The East Indian may be taken as an example. Calculations have hitherto been made on the assumption that the cost would be about 12,000*l.* a mile, but it is now estimated that it will be upwards of 16,000*l.*; so that, instead of a revenue of 802,950*l.* to produce a profit of five per cent., there must be a revenue of 1,100,000*l.* Judgment must, accordingly, be suspended until all the materials for calculation are attainable. But adverting to the increase of traffic that has already taken place on the broken sections of line which have been opened from time to time, to the average amount of working expenses, which will probably be further gradually reduced by the employment of native skill and labour and by the use of native fuel, there is good ground for the hope that the increase in the original estimate of their cost will not prevent them from being remunerative.

The traffic operations of the three railways at work are shown in the following table :—

Year ending 30th June.	Number of miles open.	Railway.	Number of Passengers. 1st Class.	2nd Class.	3rd Class.	Total.	Receipts from Passengers.	Receipts from Merchandise.	Receipts from Railway Materials.	Total Receipts.	Working Expenses.	Net Profits.
							£	£	£	£	£	£
1860	723	289 East Indian ... ... / 297 Great Indian Peninsula / 137 Madras...	33,792	254,212	3,549,324	3,837,324	226,841	296,661	62,825	586,328	283,148	303,180
1859	432	142 East Indian ... ... / 194 Great Indian Peninsula / 96 Madras...	28,973	176,826	2,516,583	2,722,382	157,431	168,285	56,709	382,425	187,065	195,360
		Increase of year 1860 over year 1859 ...	4,819	77,386	1,032,737	1,114,942	69,410	128,376	6,116	203,903	96,083	107,820

The number of passengers per mile was, on the East Indian line 10,383 against 9,661 the previous year; on the Great Indian Peninsula line 4,359 against 5,987 ; and on the Madras line 5,897 against 3,009 ; making an average of 7,044 on the three lines against 6,533 the previous year. As regards class, the first class passengers decreased from 1·2 to 0·8, the second increased from 6·2 to 6·4, and the third increased from 92·6 to 92·8.

Accidents.—The number of passengers killed was 5, and injured, 6, from causes beyond their own control, being 1·28 per million of killed, and 1·92 per million injured, against ·15 and 3·19 respectively in Great Britain. The number of passengers carried was 3,112,500. The average number on railways in Great Britain is 139,000,000.

Stock.—The prices of Railway stock varied during the year as follows:—

	Highest.	Lowest.
East Indian	104½	98
Madras	102	94
Great Indian Peninsula	102½	96½
Sind	101½	97½
Indus Flotilla	101½	92
Bombay, Baroda and Central India	100¾	92½
Calcutta and South Eastern ...	5¼	4¾

The difference is attributed to accidental circumstances which cannot altogether be accounted for. Indian stock and Consols were depressed almost in the same proportion.

The report says in conclusion. "For a long period the funds raised by the Companies were abundant, and balances of considerable amount usually stood to their credit. There is no reason to suppose that this steady supply would not have continued had it not been for the political convulsions which have taken place. The excessive expenditure caused by the mutiny forced the Government to contract large loans, which naturally interfered with the financial operations of the Companies. This may be regarded as a temporary cause which will pass away; but it was not possible to wait for more favourable times without incurring serious loss. While the difficulties have been increasing the works have been prosecuted, and have now arrived at that stage in their progress which demands an outlay during the present year as large as last year, and higher than will be required in any subsequent year. The future progress and early success of these great works depends, then, upon the financial arrangements that may be made to meet the expenditure requisite to bring them into a profitable condition. It has all along been necessary to extend the support of the Government to the Companies which have undertaken them. Assistance has been given in the shape of a guarantee of interest upon the capital, and with this help more than thirty-four millions have been raised. Upwards of two more can be raised by calls upon issued shares, and, if the state of the money market improves, further amounts may be obtained by debentures and additional shares. But if the expenditure is at a rate more rapid than that at which capital can be raised by these means, it may be necessary to have recourse to Government aid in the shape of advances. The charge upon the State involved in this arrangement, will not be more than it now is, and the risk to the Government will not be greater, as the conditions of the contracts remain unaffected by it. There can be no doubt that the best policy to be pursued, under existing cir-

cumstances, is that which has been decided on, viz., to proceed steadily with the works which are in progress and to raise funds as required, if the Companies fail to do so, through the direct agency of Government; to postpone, but only temporarily, works which have not been commenced; and to guarantee no further projects until the lines already sanctioned have been completed."

EPIDEMIC FEVER IN SOME OF THE JAILS OF THE NORTH WEST.

1860.

On the 7th September 1860 the Inspector General of Prisons, N. W. Provinces, forwards to Government the reports of the Superintendents of the Prisons at Agra, Meerut, Allahabad, Benares and Ghazeepore on the fever which broke out in the jails in those districts during 1860. The most important is that of Dr. Walker on the history of the epidemic in the Agra Jail.

Agra Central Prison.—In February 1860 the attention of Dr. Walker was directed to the unusually large number of admissions into Hospital under the head of fever. The type of the fever was found to be very peculiar and Dr. Walker called it Typhoid Continued Fever. It was soon discovered that the disease was contagious and means were taken to prevent its spreading among the prisoners. The numbers were lessened by sending gangs of men to neighbouring stations. In the middle of March an encampment was formed on some high ground near the station; no improvement was found to result from this; the men were then removed to another piece of ground, and on the 8th and 9th of April they were brought back to their old quarters in the jail. By the middle of May the disease began to decline. In March the daily admissions to the hospital were 15·8, in April 23·9, in May 12·3 and in June 4·6.

It is evident that the disease prevailed in districts hundreds of miles apart about the same time. In June 1859 it attacked the Military Police at Saugor, and the natives in the station. The Civil Surgeons of Mynpoory, Allygurh, and Futtehghur report the occurrence of cases similar to those occurring in the Agra Jail in 1860. Fever also visited the districts of Agra, Meerut and Allygurh, the jails of Meerut, Allahabad and Lucknow, and the Pergunnah of Futtehpore Seekrie. Locality, therefore, had nothing to do with the origin of the epidemic in the

Agra jail and the point to be investigated was—how the mortality was so great among the convicts.

The diet of the convicts was the same in respect of quantity as that of the free population around them, and in nutritive power it was equal if not superior. No labour that could be called exhausting or excessive was carried on in the jail, in addition to which the prisoners enjoyed the advantage of one day's rest in seven. The jail was never overcrowded. Not more than 2,300 at a time were in it, whereas it is constructed for 2,500, and has sometimes accommodated 3,200. Since February 1858 the daily average of prisoners has been 1635·2, which would give 562·4 cubic feet of air to each prisoner to sleep in, exclusive of the barracks and hospitals, and without taking into account the free ventilation of sides and roof. The sanitary arrangements were all that could be wished. Dr. Walker here asks;—"what is the reason that when an epidemic arises in this country its action is so disproportionately violent amongst the inmates in our jails; or, as in the present case, why has a fever, which was general among the free population, assumed an aspect so much more deadly amongst the convicts? The answer is to be found in the lowered tone of health among the prisoners."

The records of the jail show that a large proportion of the ordinary mortality of the jail is due to Phthisis, or tubercular disease and general failure of the constitution, terminating in jail diarrhœa. It has been found that every third or fourth year the inmates of the Agra jail are subjected to some pestilential scourge; not always mortal, but on every occasion causing temporary alterations in the diet, removal of the affected into camp, and the employment of other hygienic means to alleviate the complaint. Thus in 1848 two-thirds of the convicts became affected with scurvy. In 1851 cholera appeared, and acted more violently upon the convicts than on the surrounding population. In 1853 gangrenous ulcers assumed an epidemic tendency. In 1856 cholera re-appeared, making ten-fold more havoc within the prison than without it. And in 1860 came the fever under report. Regarding the origin of the disease Dr. Walker says. "It would lead only to unprofitable speculation, to attempt to guess at the exciting cause of a disease so widely spread. Most probably it had its origin in some unknown condition or change in the atmosphere. Its history shows it to have been independent of locality, and its symptoms contradict any hypothesis of a malarious origin. What I would wish shortly to investigate, are, the causes that act on the constitutions of prisoners, especially when confined in large jails, so as to render them so susceptible to, and so ill able to withstand the at-

tack of, any disease; and connected with this how far these causes are remediable." One of the causes is that there is a total absence of change in the food. It is in this point alone that the food of the free population is superior, it is changed from time to time. There are causes operating in a central jail which do not exist in smaller jails. One of these is the confinement of prisoners constantly within the same space. The air is never relieved from the breathings and exhalations from the bodies of the 2,000 men or more which the prison contains. The remedy for this is that the great body of the prisoners should have a change of air once a year. The effect of the mental depression from which men suffer for the first two or three years of their imprisonment can hardly be overrated, but this is an irremediable evil. Dr. Walker here describes at considerable length the symptoms, and general course of the fever. Regarding the treatment he says, "I have very few remarks to make on the treatment of the disease. It resolved itself at last into the ordinary expectant and watchful treatment that must ever be resorted to, where a poison has to be eliminated from the system; and where no specific has power to destroy it, or cut short its period of action. Most usually, when a man was admitted, if his bowels had not been freely opened, a dose of four to five grains of calomel was administered, and followed up by a senna draught. Subsequently the condition of his bowels was regulated by castor oil, or warm water enemata. Quinine I soon found to be positively injurious, until convalescence had commenced, when it became invaluable as a powerful tonic and agent in preventing the occurrence of a relapse. When the patients' bowels had been well acted upon, I ordinarily commenced by giving two grains of calomel, or three grains of *hydrargeri cum cretæ* alone, or with small doses of James's or Dover's powder, three or four times in the twenty-fours." Dr. Walker was of opinion that the fever was contagious in an eminent degree, and in this view he is upheld by Dr. Clark, the Inspector General of Prisons, N. W. Provinces. The contagious character of the disease was proved by the fact that nearly all the hospital establishment took it. Not one native who was present throughout or at the height of the epidemic, escaped from an attack. Of 324 attendants on the sick, 221 were attacked and 56 died, which is equivalent to 68·2 per cent. attacked, and 25·3 per cent. fatally. The period of incubation before the disease developed itself was from 15 to 19 days. The men employed as sweepers almost all contracted the disease. At the same time the poison of the fever had not much diffusive power, as was shown by the immunity of the jail guards, and isolated groups of prisoners. The

statistics of the disease show that out of a strength of 2,282 men, 2,024 cases of fever were admitted into hospital during the five months, from February to June inclusive. Out of the number, 299 casualties resulted : so that the ratio of the sick to the strength was 88·6 per cent., the ratio of deaths to treated being 14·7. The number of admissions, and rate of mortality, was highest amongst the sweepers. Next to them, the sickness appears to have been greatest among the Hindoos, usually flesh-eaters ; and least of all amongst the Mahomedans : while the death rate was exactly the reverse of this, the mortality amongst the Mussulmans being as high as 17 per cent., and that amongst the flesh-eating Hindoos only 12·5. The Hindoos, not usually flesh-eaters, seem to have had an intermediate rate of sickness, but the mortality amongst them went up as high as 18·6 per cent. Dr. Walker concludes with the following remarks :—"On the first appearance of such an affection in a jail, every prisoner that can be disposed of ought to be removed from the prison ; this, not so much with the object of separating the healthy from the affected as to allow the affected some small chance of recovery. Nothing is so well established, as that the intensity of an animal poison is increased a thousand-fold, by having the patients crowded together. The atmosphere around them becomes a deadly poison, and every breath they draw carries its load of death into their systems. This atmosphere must be diluted by ventilation, and the scattering of the affected over a large area; and at whatever expense of convenience or extra labour, every barrack in a large jail ought to be converted into an hospital ward, and made to contain the smallest possible number of patients. I feel that I cannot insist on this too strongly ; and I am confident, that had it been in my power to relieve this jail, for a period, of 1,500 men instead of 650, the mortality would have been immeasurably lessened. Let this condition be accomplished efficiently, then medicine, careful nursing and diet will all have their full curative effects : let it be attended to imperfectly, or not at all, and the physician may shut up his medicine chest, assured that the extinction of the disease and of his patients will be simultaneous, and quite independent of the means at his disposal."

Meerut Central Prison.—Dr. Corbyn reports that the disease was not influenced by locality, and that every point essential to the maintenance of health was perfect in this jail. The fever attacked the district population with great violence. In one village containing 2,500 inhabitants 400 died from fever and smallpox at that time. In another with a population of 4,900, 500 died from the same causes. In the Meerut jail hospital

776 patients were admitted during March, April and May 1860, and 55 remained from previous months, total 831, of whom 214 died, 612 were discharged and 5 remained in hospital on 31st May.

Allahabad Central Prison.—Dr. Bow reports that out of 490 persons treated for fever, about 20 per cent. died. He does not consider the disease to have been contagious. About a fourth of the whole number of prisoners in jail were attacked. The only circumstance which would lead to the idea of its contagious nature was the number of attendants on the sick who were attacked. But 38 attendants, none of whom had been less than a week on duty, were not attacked.

Benares Central Prison.—Dr. Naismith reports that in October, November and December 1859 the population of Benares suffered very much from fever of an obstinate character. Among the prisoners in the jail it never showed features indicative of virulence and contagion and with very few exceptions yielded readily to treatment.

Ghazeepore Jail.—Dr. Garden reports that fever appeared here in October, November and December 1859 and January 1860. The effect on the surrounding population was much greater than on the prisoners. In malarious districts the fever raged most fearfully and most fatally. In his annual report Dr. Garden says, "to have removed the prisoners from within the walls of the jail to camp in the open country, where the fearful scourge was raging with ten-fold power, would have been without avail."

The statistical statements appended to the above reports contain full particulars of the epidemic, the classes of persons affected by it and the state of the weather at the time. Dr. Clark in reviewing the reports says. "In fact, with the exception of Agra and Meerut, the prisoners in all parts of the country appear to have been much more healthy than the free population, and if it could be properly ascertained, I am inclined to think the ratio of mortality in even the Agra and Meerut prisons would be found under what it was in many of the villages in the surrounding districts; and the accompanying chain of reports, extending from one end of the North Western Provinces to the other, speak of great sickness amongst the free population, and wherever I went during my late tour of inspection, I heard constant complaints of the sickly state of the season. Viewing the question from all points, I do not consider it by any means proved, that the rate of sickness and mortality amongst the convicts has been greater than amongst the free population in certain places; and when I recollect of having seen whole villages

so completely desolated by what I believe to be the same type of fever as in the Allygurh district, that there were not sufficient survivors left to dispose of the dead, I cannot see that we have yet sufficient data before us to prove that the convict's constitution is not quite as able to withstand the shock of severe attacks of disease as the free man's."

THE LAHORE AND PESHAWUR ROAD.

Punjab Records.

1860.

On the 9th of July 1860 the Chief Engineer of the Punjab reports to Government on the progress of the Lahore and Peshawur Road.

Up to the end of January 1854 a sum of 24½ lakhs of rupees had been expended. The entire length of the road is 264 miles, of which 160 miles had been thrown open by August 1854. Out of 103 masonry and timber bridges to be constructed 33 had been built. Out of 489 drains and culverts required 242 had been completed. The Kharrian and Bukralla Passes had been opened out, the roadway through the Margulla Hill was in progress and about 60 miles of additional roadway were about to become available for the passage of traffic. At that date (August 1854) it was estimated that a further expenditure of 27 lakhs of rupees would suffice for the completion of the road, with the exception of metalling those portions in the Sind-Saugor Doab and the Peshawur Valley. That estimate was inadequate. In 1856-57 the expenditure reached 70 lakhs and further operations were suspended. In 1858 Major Robertson, the then Officiating Superintendent, brought forward a scheme for opening out the road on a reduced scale, leaving out the more expensive works originally contemplated, providing temporary bridges where actually needed, or metalled causeways or gaps wherever they could be introduced in substitution of drain bridges. This estimate amounted to 11½ lakhs whereas the original estimate was 55 lakhs. Government sanctioned the reduced estimate in October 1858. At that time the Lahore to Jhelum division (99 miles) was in a forward state, the chief

drawback being that some of the bridges were destroyed or injured by floods. Of the Jhelum to Chablat division (98 miles) 88 miles had been thrown open for traffic; but half the masonry bridges and 27 drains and culverts were still required. The Chablat to Peshawur division (68 miles) was the most backward, only about 24 miles being under traffic; five-sixths of the bridgework, besides a large number of drains were wanting, and there was no material for metalling collected, except a layer of shingle spread over 19 miles. After the sanction of the reduced estimate the works were carried on. Up to July 1860 out of 264 miles of roadway 20 miles remained to be opened out, of which 8 miles were completed, awaiting only the construction of bridges. Much raising was required in the 1st division, from the Ravee to the Jhelum, a distance of 99 miles, and much widening, with sloping of cuttings and embankments in other divisions. Forty-eight masonry and timber bridges and 32 drain bridges required to be constructed. When all this was done many of the rivers and nullahs would be but temporarily bridged, the Chikoree, Shumshabad, and Deenah Nullahs and the Sohun and Leh Rivers would be altogether unprovided for and the metalling of nearly the whole road would still have to be effected. It was expected that the sanctioned works would take fully two years from July 1860 to be completed.

The cost of the road in round numbers is as follows:—

Previous to sanction of reduced estimate	Rs. 70,00,000
Reduced estimate for completing work	... 11,75,000
Extra for bridging	... 7,24,369
Probable cost of metalling	... 15,00,000
Total Rs.	103,99,369

Of this 72¾ lakhs had been expended at the date of the present report.

VACCINATION IN MADRAS.

1859.

Madras Records, No. LXVII.

The report on the Vaccine operations in Madras during 1859 is forwarded to Government by the Principal Inspector General,

Medical Department, in November 1860. There was a decrease of 21,986 in the numbers vaccinated. In 1858 the number was 3,79,732, and in 1859 only 3,57,746. In thirteen districts there was a slight increase, and in twenty-one districts a decrease. The causes of the decrease are not the same in all the districts, but most of the medical officers agree that the opposition of the people to vaccination is not the chief cause. They represent the underpaid, uncontrolled condition of the native vaccinators as the chief reason of the unsatisfactory results attending vaccination. The returns of these men are seldom to be relied on. They enter on their duties merely as a means of support till they can get something better, and they have consequently little heart in the work. In some places they meet with opposition from the people. In others some of the vaccinators are ill or absent from other causes, but these are only minor reasons for the yearly decline of the number vaccinated. The standard number of operations fixed by the Medical Board is 2,100. In only one district, Madura, has this number been attained. There 2,262 operations were performed. The lowest number was in Kurnool, where only 348 were performed. Smallpox was not so prevalent, nor so fatal, during 1860 as during some former years. The cost of the establishment was Rs. 29,778 being about Rs. 100 more than the preceding year. The average cost per 100 cases was Rs. 11-13-10, varying from Rs. 5-11-1 at Madura to Rs. 28-12-4 at Kurnool. The Government order on the subject of Vaccination says. "In several of the extracts from the district reports which have been sent up by the Principal Inspector General grave doubts are suggested as to the truthfulness of the returns rendered by the vaccinators. The lower classes of these men are indifferently paid, and no effectual supervision can be maintained over them under the present system. The Honorable the Governor in Council entirely participates in these doubts, and agrees with Dr. Pearse that the course now pursued is little better than a waste of public money." A draft General Order for the reorganization of the Subordinate Medical and Vaccine Department, was under consideration in the Military Department.

ACCIDENTS ON INDIAN RAILWAYS.

1860.

THIS Report is furnished by Captain Hyde, Under-Se-

cretary, Public Works Department. In the year 1860 the Bombay, Baroda and Central India Railway shows the fewest accidents, there having been only one, causing injury to a Railway servant, but only a very small portion of this line of Railway was opened for traffic in July 1860. The Madras Railway next shows fewest accidents, and the Great Indian Peninsula Railway the largest number. On the former, four only occurred in which no passenger was either killed or injured; on the latter, fifty-two accidents occurred, two of which resulted in the slight injury of two passengers, one from unavoidable circumstances, the other from carelessness on the part of the passenger. On the East Indian Railway, Bengal Division, there were twenty-nine accidents, and on the North-Western Provinces' Division there were twelve—of the former, three resulted in the death of two passengers owing to their own carelessness, and injury to three from causes beyond their control; of the latter, two occurred to passengers, both resulting in death, owing to their own carelessness.

Of the total number (98) of accidents on all Railways, eighteen were occasioned by negligence of Railway servants. Of these 5 were in Bengal, 2 in the N. W. Provinces and 11 on the G. I. P. Railway. There were several accidents from collisions and of a miscellaneous nature, the largest number having occurred on the Great Indian Peninsula Railway; the Miscellaneous accidents, however, were of a purely accidental nature, and the only one with any serious result was that which occurred in the Bengal Division, East Indian Railway, shortly before the opening of the line to Rajmahal.

Number of persons killed and injured from all causes on Indian Railways during 1860.

	East Indian Railway.				Bombay G. I. P. Railway.		Madras Railway		Bombay, Baroda and Central India Railway.	
	Bengal Division.		N. W. P. Division							
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured	Killed.	Injured.	Killed.	Injured.
Passengers										
Passengers killed or injured from causes beyond their own control ...	...	3	...	...	...	1	...	...	...	...
Passengers killed or injured owing to their own misconduct or want of caution	2	...	2	...	..	1	...	..	...	...
Total Passengers killed or injured	2	3	2	...	...	2	...	...	...	..
People connected with the Railway.										
Servants of the Company or of Contractors killed, or injured from causes beyond their own control ...	19	19	1	...	2	3	1	...	...	1
Ditto owing to their own misconduct or want of caution	8	2	...	1	10	10	1	...	...	...
Total Railway people killed or injured	27	21	1	1	12	13	2	...	...	1
Others, neither Passengers nor Railway Company's servants.										
Trespasses	5	3	...	...	2	1	...	...	...	...
Suicide	...	...	...	...	...	...	...	...	...	...
Total persons unconnected with the Railway	5	3	...	...	2	1	...	...	...	..
Grand Total killed or injured ...	34	27	3	1	14	16	2	...	...	1
Mean length of Railway open during year	Miles 183·75		Miles 123		Miles 297½		Miles 137		Miles 35¾	
Number of Passengers carried ...	15,67,200		2,19,708		13,83,724		9,85,010		99,598	

Statement showing the number of Passengers carried and those killed or injured from causes beyond their own control.

1860.	Total number of Passengers carried.	Total Number.		Proportion per Million.	
		Killed.	Injured.	Killed.	Injured.
1. East Indian Railway, Bengal Division ...	15,67,200	...	3	...	1·91
2. Ditto N. W. P. Division	2,19,708	...	...	...	·00
3. Madras Railway ...	9,85,010	...	...	...	·00
4. Great Indian Peninsula Railway ...	13,83,724	...	1	...	·72
5. Bombay, Baroda and Central India ...	99,598	...	...	...	·00
Total	42,55,240	...	4	...	·94
Average on Railways in Great Britain	1,39,000,000	...	...	·15	3·19

GEOLOGICAL SURVEY OF INDIA.

1860-61.

Bengal.—The country adjoining the Kurruckpore hills in Monghyr, and extending across the district of Behar, so far as the parallel of Gya, was gone over. The whole area between Monghyr and Gya, and southwards as far as the country had been topographically surveyed (that is, up to the boundary of Chota Nagpore or Ramgurh,) was accomplished. All the alluvial plains also extending up to, and south of, the Ganges River in Behar, Patna, and Shahabad districts, were examined. The examination of the alluvial deposits of Bengal was carried on in connection with previous researches, throughout the districts of Behar, Patna, and Shahabad; those portions of Bhagulpore and Monghyr which lie North of the Ganges, Tirhoot, and parts of Goruckpore and Azimghur; and will again be resumed so as to

connect these with the country around Benares, Mirzapore, and Allahabad during the ensuing season. A finished map of the Raneegunge Coal-field was lithographed, and Mr. Blandford's Report on the field printed off.

Central India.—The examination of the Rewah district and adjoining country, connected with previous researches in the valley of the Nerbudda, was resumed. The "terrible faultiness" of existing maps was a sad drawback. Mr. J. G. Medlicott, in charge of the survey, reported the existence of a large amount of good Coal in the Southern part of the district.

North Western Provinces.—The investigation of the Sewalik and Sub-Himalayan Rocks was continued to the North-West beyond the Sutlej up to near Kangra by Professor H. B. Medlicott, and new facts of interest regarding their history established. A brief abstract was given in the Journal of the Bengal Asiatic Society.

Madras.—The season for field work does not coincide with that in Bengal, which nearly closes with the Indian financial year. Carrying into execution the plan arranged last season, two of the Madras party took up the interesting districts of Cuddapah and Kurnool, and some progress was made in them. Messrs. King and Foote examined a portion of the flanks of the Neilgherries and devoted themselves to arranging and classifying the local Museums first at Ootacamund, and subsequently, in part, at Madras. Mr. H. F. Blandford continued his examination of the fossils of the cretaceous system of South India.

Pegu and Tenasserim.—The Geological Survey was commenced in British Burmah during the past year under Mr. W. T. Blandford. The district of Henzada was first taken up, and several petroleum wells and salt springs were discovered.

General.—Volume II. of the Publications was completed. Several plates of the more important organic remains were prepared. About 370 volumes were added to the Library, which was frequently referred to by many persons. The additions to the named and arranged collections of the Museum was about 2,000 in number. Just before the close of last year, the researches of Mr. William Blandford in the Raneegunge field were rewarded by the discovery of Reptilian remains, which, on closer examination, have proved to be of the highest interest, as containing remains of a peculiar group of fossil reptiles hitherto only known from South Africa. The strong analogy which these South African rocks offered to some of the Indian rocks had been insisted on by Mr. Oldham before this discovery, on the strength of the plant remains alone; and this was strangely confirmed by this discovery of reptiles of the same type (Dicynodontia).

This discovery will tend much to settle the disputed Geological question of the true age of these rocks. During the year the aid of the Officers of the Museum was sought by many individuals and Companies, as well as public Departments, for assays or analyses of minerals and metallic ores. The visitors to the Museum continued to average about the same number. Mr. W. Blandford reported on the Iron-works at Mahamud Bazar, Beerbhoom. The Superintendent of the Survey considers the progress during the year to have been "very satisfactory."

MINERAL STATISTICS—COAL.

1861.

Mr. Oldham, Superintendent of the Geological Survey, publishes the first part of a series of Mineral Statistics, referring to coal only, in the Memoirs of the Survey. His facts were obtained at the pits themselves, and with all possible precaution of repeated enquiry and cross questioning, under the authority of the several proprietors. The returns do not embrace a few collieries such as those at Kotah, Singrowli, &c.; but the out-turn of these is known to be small, and would not seriously affect the general result. The returns are given for three years from the 1st of October or November 1857, to the same date 1860. This is, by custom, considered the close of the "coal year," from the circumstance that, until recently, the only mode of conveyance for coal from the Raneegunge field was by the River Damuda, and as the accounts were closed, when, after the rainy season, the river had so diminished in the amount of its waters, that there appeared no chance of sending any more coals to market that season—this period thus became the customary close of the local year.

The total returns give an average out-turn of coal for the past three years of 87,37,454 maunds, or about 320,631 tons. But it is scarcely just to consider this as giving a fair mean of the present out-turn, for during the first of these years there were, as is well known, disturbing causes at work tending to injure the regular trade of the country—and a fairer average, though determined by too small a number of years, will be obtained by taking the mean of the last two year's produce. This will give 100,25,020 maunds, or about 367,890 tons in the twelve months. The total out-turn for 1860 (that is, for the twelve-months ending October 1860) was 100,88,113 maunds, or 370,206 tons, an

amount almost contemptible (about the 200th part) if compared with the wondrous total of the coals raised annually in Great Britian, *viz.* 72 millions of tons! but still evidencing a large and increasing commerce and the spread of many of the arts of civilization. The following gives the general result:—

Districts.	1858.	1859.	1860.
Raneegunge Coal Field ...	59,17,000	89,49,600	85,59,097
Rajmahal Hills	2,19,000	8,43,000	12,22,860
Kurhurbari	4,000	1,08,182	2,75,256
Palamow	...	28,648	30,900
Sylhet Hills	22,319	32,498	.....
Total in Maunds ...	61,62,319	99,61,928	1,00,88,113
Or in Tons ...	226,140	365,575	370,206

The out-turn of the Singrowli field, to the south of the Soane in the Rewah territory, is small. The Nerbudda Coal and Iron Company have just commenced operations in the Nerbudda valley. In other parts of the North-Western Provinces territory there is no known *workable* coal. Seams of lignite of very irregular size and very limited extent occur in several places along the foot of the Sub-Himalayas, marking a certain group of sandstone rocks, of comparatively recent date; but nowhere are these deposits known to be of an extent rendering it probable they will ever be of any practical use. In Oude no coal is known to occur. In the Punjab no coal is known to occur, if we except the patches of lignite which have been found in several localities along the base of the outer Himalaya, as well as in the Salt Range. In Sind the only coal raised was that of Lynah Valley, as given above, but the irregularity and the small extent of this deposit has caused it to be abandoned. It was, in fact, an irregular patch of *lignite*. In Bombay no coal is known to occur. In Hyderabad none. In Nagpore a small coal field is known near to Umret, on the border of the Nerbudda District, which may, in fact, be considered a continuation (although actually separated) of the Nerbudda deposits. The coal is not now economized. In Madras no coal is known. Coal has been more than once stated to occur on the Godavery, or some of its feeders, even very recently; but as yet nothing but black shales, which will not support combustion, and which are, in all proba-

bility, of a totally different age from the coal-bearing rocks of India, have been met with.

PUBLIC INSTRUCTION IN BENGAL.

1859-60.

THE Director, Mr. W. S. Atkinson, apologises for his meagre and imperfect narrative of the proceedings of the Department of Education in the Lower Provinces of Bengal, for the year ending April 30th, 1860, issued in 1861, on the ground of his recent appointment to his office, having succeeded Mr. Gordon Young on the 10th of May. The General Statistics will be found at page 333 of this volume.

Calcutta University.—In 1858 the late Court of Directors overruled the decision of the Government of India admitting among the subjects of examination for Honors in the Mental and Moral Sciences the Evidences of Revealed Religion, as contained in Paley's Evidences and Butler's Analogy, principally with reference to those schools affiliated to the University, where a considerable portion of the time of the students is taken up with subjects which would otherwise avail them nothing in their competition for University Honors, by refusing to allow marks gained for these subjects to influence the position of competitors in the list. The Faculty of Arts remonstrated, the Government of India agreed in the remonstrance and the Secretary of State for India conceded the point at issue.

Colleges.—In those for General Education there was an increase of students—

	Number on rolls at the close of session of 1858-59 (31st March.)	Number on rolls at the close of session of 1859 (31st December.)
Presidency College, ...	101	122
Hooghly ,, ...	30	32
Dacca ,, ...	29	34
Kishnaghur ,, ...	28	30
Berhampore ,, ...	7	16
Total	195	234

In the *Law Department* of the Presidency College, the Diploma examinations were superseded by those of the University. There were 88 students in all of whom 28 were first year, 46 second year and 14 third year. Of these 42 were regular students, the rest out-students. In the Presidency College the monthly cost to Government of educating each pupil was, in the General Department Rupees 38-2-3, and in the Law Department Rupees 11-9-1, the corresponding amounts for last year being Rupees 54-0-10, and Rupees 15-9-8 respectively.

Medical College.—In the English class there were 104 students of whom 67 were free. Of the whole, 10 were Christians, 3 native converts, 90 Hindoos and 1 Mahomedan, of the Hindoos 29 were Brahmins and 40 Koystos. In the Military or Hindustanee Class there were 76. pupils upon the pay of 6 rupees, and seven stipendiary pupils from Assam, making in all 83. Of these 73 were Mahomedans, 8 Hindoos, and 2 converted Native Christians. In the Bengali Class, there were 21 stipendiary pupils upon the pay of 5 rupees a month, 3 scholarship-holders from other Schools, and 19 Free Students, making in all 43. Of these 42 were Hindoos and one Mahomedan. At the end of the session there were 34 students eligible for the examination for the degree of Licentiate in Medicine and Surgery. Of these 30 went up and 13 passed. The student apprentice class remained empty during the session, owing to the pressing requirements of European Regiments, and the impossibility of detaching hospital apprentices from European regimental hospitals to study in the Medical College. In the Dissecting Department 472 bodies were distributed to the English Class for dissection; 549 to the Secondary Classes for the same purpose; 110 bodies were devoted to illustrating Lectures on Anatomy, and 56 for Lectures on Operative Surgery.

Civil Engineering College.—The session began with 89 students of whom 55 were new. Admission was refused to others as the rooms were small. A considerable number of the students qualified at the examination for different grades of the Public Works Department, but only 11 of them applied to be appointed to the Government Service, the remainder preferring to remain on for a third year to complete their course.

The School of Industrial Art was in a state of transition. There was no teacher of moulding and modelling, but considerable success was attained in wood-engraving.

Calcutta Mudrissa.—In the Arabic Department there were 88 students in 5 classes.

Sanscrit College.—There were 268 students of whom 222 paid fees.

The Collegiate and Zillah Schools continued to take rank as the best managed and most efficient in the country, and maintained their popularity. In 1859 there were 47 schools with an attendance of 6,554 pupils; in 1860 there were 45 with an attendance of 6,701.

The Aided Schools were in a satisfactory state. *Purely Vernacular Schools* were far less popular than English, owing to the desire for Government situations. The Director complains that attention is not paid to the orders of Government by which a preference is directed to be given to those applicants for employment in the inferior grades of the Public Service, who possess at least the elementary knowledge which may be acquired in the humblest school. The following shews the number of such schools:—

Year.	Number of Schools.				Students on the Rolls on the 30th April.			
	English.	Anglo-Vernacular.	Vernacular.	Total.	English.	Anglo-Vernacular.	Vernacular.	Total.
1858	22	79	162	263	2,447	7,151	8,996	18,594
1859	17	75	247	339	2,426	6,404	16,096*	24,926*
1860	19	74	263	356	2,304	6,312	10,563	19,179

The figures marked* are erroneous. To check the frauds which prevail in Aided Schools, which are not in fact supported exclusively upon the amount (10 to 12 Rupees a month) which they receive from Government, false returns and receipts being periodically submitted to ensure the continuance of the grant, every such case was directed to be prosecuted in the Criminal Courts; since which there has been no instance of fraud. In 1857, Rs. 10,000 per month was fixed as the maximum amount to be

expended in aid of private Schools. Out of this sum 381 Schools had received assignments, in grants of various amounts, aggregating Rupees 9,210-14-8 per mensem, when on 31st August 1858, the order was received by which all increase of expenditure for educational purposes was peremptorily prohibited. This restriction was subsequently withdrawn so that the whole sum was made available.

The following table shews the total number of students receiving instruction in the Colleges and Schools of all classes open to the inspection of the Officers of the Department at the close of 1859-60.

April 30th 1860.	Number of Schools.		Number of Students.	
Government Institutions.				
Colleges (General and Professional), ...	9		1,098	
English Schools, ...	45		6,701	
Anglo-Vernacular Schools, ...	9		349	
Vernacular Schools, ...	223		10,450	
		286		18,593
Aided Schools.				
English,...	20		2,328	
Anglo-Vernacular, ...	74		6,312	
Vernacular, ...	263		10,563	
Girls' Schools, ...	8		199	
		365		19,402
Indigenous Vernacular Schools under improvement in East Bengal, ...	197	197	8,707	8,707
		848		46,702

During the year it was made imperative on all Europeans appointed to the Educational Department to prove that they possess a sufficient colloquial knowledge of the Vernacular language of the District in which they are employed, failing which, their services should be dispensed with. It was found that 14 officers were not so qualified, and various periods were allowed to them to prepare for examination.

Inspectors' Reports.—Mr. H. Woodrow, M. A., was Inspector of East Bengal which contains, exclusive of the Sunderbunds, an

area of 25,692 square miles, and a population of 6,800,676, which gives an average of 264 people to each square mile. This division is a little less in area and greater in population than Ireland. It contains 10 zillahs or counties. In 1857-58 it had 270 shools and 15,350 pupils, which in 1859-60 rose to 332 schools and 18,830 pupils. Of this number the pupils learning English as well as the Vernacular increased from 4,713 to 4,824 or by 111, and those learning the Vernacular language only from 10,637 to 14,006 or by 3,369. The increase is 22 per cent. on the total number of pupils, being 2½ per cent. on those who learn English, and 31½ pér cent. on those who learn the Vernacular languages only ; 667 teachers were engaged in the managemen tof those schools of whom 3 had salaries of Rs. 400 and upwards, 28 of Rs. 100 and less than Rs. 400, 28 of Rs. 50 and less than Rs. 100, and 608 under Rs. 50, the teachers of the 197 Indigenous schools under improvement are paid entirely by fees, and the Government keeps no account of what they receive. Their monthly remuneration varies from 3 to 20 Rupees, and is paid partly in money and partly in gifts of food and clothes. Mr. A. S. Harrison, Inspector in the Behar Division, reviews the Zillah schools in Patna, Gyah, Chuprah, Arrah, Tirhoot, Monghyr, Bhaugulporé, Purneah, and Chota Nagpore, all of which are English. The following are the *Chatsals* or vernacular schools scattered through the eight districts in the Commissionerships, of Patna, and Bhaugulpore, but not in the Chota Nagpore Division.

I. Districts.		Schools.		Pupils.
Patna,	...	7	...	287
Behar,	...	11	...	663
Shahabad,	...	6	...	126
Sarun,	...	10	...	482
Tirhoot,	...	6	...	312
Monghyr,	...	9	...	408
Bhaugulpore,	...	8	...	221
Purneah,	...	5	...	155

II. Other vernacular schools on the same model and under the control of the Deputy Inspectors, but supported by the Zemindars.

Sarun,	...	15	...	359 from 14 schools.
Tirhoot,	...	1	...	28
Monghyr,	...	3	...	67
Behar,	...	4	...	135
Shahabad,	...	7	...	57 from 4 schools.
Patna,	...	0	...	
Bhaugulpore,	...	0	...	
Purneah,	...	0	...	

III. Schools open to inspection but not so immediately under control.

Patna,	... 2	...	89
Tirhoot(Durbangah,)	1	...	36
Monghyr,	2	...	59
Shahabad(Doomraon,)	1	...	68

Mr. E. Lodge, Inspector South Bengal supervised:—

4 Government Zillah English Schools.
1 Government Normal Vernacular School.
4 Government Vernacular (Lord Hardinge's.)
10 Government Model Vernacular.
27 Private aided English Schools.
59 Private aided Vernacular Schools.
Three Female Schools.

Mr. W. Robinson, Inspector of N. E. Bengal and Assam, supervised 10 English Schools with 1,142 on the rolls and an average attendance of 770; of these 5 were aided. Government supported 27 vernacular schools, and also 59 village schools in Assam. It aided 13 schools in the Khasia Hills, 14 among the Kacharis and 9 in other zillahs. It subsidised 29 schools in Gowalpara, Kamroop, Nowgong, Durrung and Sibsagor, with 1,363 pupils. The Normal School at Gowhatty worked well.

Dr. E. Roer was Inspector of S. W. Bengal where he supervised 7 Zillah Schools with 1,085 pupils; 1 Government Anglo-Vernacular with 50 pupils; 9 Model with 621 pupils; 23 Government Vernacular with 1,059 pupils; 2 aided superior English with 394 pupils; 14 aided Anglo-Vernacular with 1,224 pupils; and 37 aided Vernacular with 1,726 pupils, or in all 93 schools with 6,159 pupils:—

General Statement of amount expended by Government on Education during the year 1859-60.

	Salaries.	Books, Prizes and other Rewards.	Pensions.	Repairs, &c.	Contingencies.	Grants-in-aid.	Total.
General Establishment	1,57,773 8 2	.....	.....	.....	23,286 12 1	.....	1,81,060 4 3
Government Colleges and Schools.							
General	4,82,957 11 9	15,650 9 6	2,563 8 0	510 0 0	39,671 14 11	.....	5,41,353 12 2
Special	1,39,100 9 1	3,932 11 6	.....	.....	22,122 13 7	.....	1,65,156 2 2
Scholarships for general and special purposes	.....	.....	.....	.....	.....	.....	37,983 6 2
Endowed Scholarships for general and special purposes ...	.....	.....	.....	.....	.....	.....	794 0 0
Private Colleges and Schools.							
General	22,819 5 5	.....	.....	.....	5,687 11 9	80,449 12 1	1,08,956 13 3
Special	.....	.....	.....	.....	.....	8,150 0 0	8,150 0 0
Total ...	8,02,651 2 5	19,583 5 0	2,563 8 0	510 0 0	90,769 4 1	88,599 12 1	10,43,454 6 0
DEDUCT.—Receipts from the proceeds of Endowments, Fees, &c., ...							2,45,839 11 2
Net total charges, ...							7,97,614 10 10

MADRAS LAND REVENUE REPORT.

(Fusly 1267) 1857-58.

On 26th September 1859 the Governor of Madras in Council reviews the Land Revenue Report for Fusly 1267. The Report is not published till the end of 1860. The total extent of land included in Ryotwar holdings, omitting Canara, Malabar, and Madras, where the acreage held is not recorded, was acres 1,36,61,113, bearing an assessment of Rupees 3,29,11,093; a deduction of 7,20,083 acres, with an assessment of Rupees 16,78,709, for waste remitted, leaves acres 1,29,41,030 assessed at Rupees 3,12,32,384. This last amount includes Rupees 12,54,705 of uncultivated land. The land assessment of the three Districts above named being added, raises the whole Ryotwar Settlement to Rupees 3,52,63,656. The season was bad owing to a deficiency of rain, and rice rose 20 per cent. in price. Notwithstanding this the ryots took up new land in the districts in which the assessment had been reduced to the extent of 11,10,001 acres assessed at Rs. 36,67,869. The total demand of Revenue for the year, was Rupees 4,95,55,588, or nearly five millions sterling; being a net decrease of Rupees 4,57,800:—

	Fusly 1266.	Fusly 1267.	Increase.	Decrease.
	Rs.	Rs.	Rs.	Rs.
Land Revenue ...	385,13,019	375,70,146	.....	9,42,873
Sundry Sources ...	111,73,753	117,01,939	5,28,186	.....
Extra Revenue ...	2,88,421	2,60,369	.....	28,052
Interest Account ...	38,195	23,134	.....	15,061
Total ...	500,13,388	495,55,588	5,28,186	9,85,986
Net decrease ...	.....	.....	.....	4,57,800

Out of this whole demand the sum of Rupees 4,46,47,440 was realized within the Revenue year, leaving an arrear of Rupees 49,08,148 outstanding at its close.

Revenue Statistics.—The population is given at 23,127,855, or deducting 720,000 for the city of Madras, at 22,407,855. There were 35,998 hamlets, 16,567 zemindary villages and 35,995 Government villages. The last were thus held:—

	Villages.
Ryotwar	... 25,978
Rented	... 5,942
Amany	... 74
Shrotriem and Inam	... 3,832
Moturpha	... 140
Bacherach or uninhabited ...	... 29
	35,995

The following shews the different sources of irrigation in repair:—

Tanks	...	...	... 28,111
River Channels	..	..	... 11,230
Spring ditto ...	...	...	... 8,290
Annicuts ...	...	...	... 8,092
Wells { old	... 2,38,070		
Wells { new	... 48,019		
			2,86,089

Of the whole population 2,107,217 are Meerassidars and under-tenants; the number of Puttadars, including those who hold under joint puttahs, is 18,10,992. There were 1,513,927 ploughs, 3,578,937 tilling cattle, 3,246,175 cows, 1,290,579 she buffaloes, and 6,093,534 sheep. The Rent Roll in the 20 districts of Madras shews the following:—

	Assessment.	No.
Ryots paying upwards of ... Rs. 1,000	6,78,771	431
from Rs. 500 to 1,000	10,27,434	1,530
250 to 500	18,82,960	5,635
100 to 250	45,35,135	31,180
50 to 100	52,75,621	77,408
30 to 50	43,36,652	1,14,127
10 to 30	68,49,683	3,98,029
Under 10	36,35,523	10,08,024

The average assessment per acre of dry land was Rs. 1-3, of wet land Rs. 5-12-4 and of garden land Rs. 3-15-4. Acres 38,664 were under sugar-cane, 932,285 under cotton and 205,663 under indigo. The extent of waste land as compared with cultivated was as follows:—

	Waste acres.	Cultivation acres.
Nellore	4,51,160	4,21,529
Cuddapah	26,05,339	12,95,298
Bellary	36,42,643	17,73,930
Chingleput	5,37,516	2,88,842
South Arcot	10,50,705	8,95,479
Madura	7,24,981	5,67,171

TRIGONOMETRICAL SURVEY IN CASHMERE.

Punjab Records.

A memorandum on the progress of the Trigonometrical Survey in Cashmere is drawn up by Captain S. G. Montgomerie and forwarded to Government in March 1861. Being originally intended for the Asiatic Society, it contains other information besides that relating directly to the Cashmere series.

During the field season of 1860 the triangulation made good progress up the river Indus and the position of Leh, the capital of Ladak, was finally fixed. The fort was found to be, Latitude 34-9-30, Longitude 77-36-42 and height above the sea 11,278 feet. Some of the stations subsequently visited for the purposes of the survey were from 17,000 to 20,000 feet high. A mark was erected on a point 21,483 feet above the sea, but there was not sufficient space to put a theodolite on it. Several peaks in China were fixed, and amongst others the well known Gya peak is supposed to be included. The height of this peak appears to be from 23 to 24,000 feet. Some progress was made with the triangulation of Zanskar. The triangulation was commenced on the upper course of the Shayok river, in the Nubra district. The topographical work was first taken up in the Kishengunga valley. The country there is difficult of access at the best time of the year, but the operations were taken up at a time when the snow was heavy even at 9,000 feet. The work was completed in good time and the whole of the surveyors were transferred to fresh ground in Little Thibet and Ladak. During the season topographical sketches were made of the whole valley of the Indus, from Skardo, the capital of Little Thibet,

or Bulti, to Leh, the capital of Ladak; as well as the whole of the Sooroo and Dras vallies, the plains of Deosai, and a large part of the Shigar valley north of Skardo, with a portion of the Nubra or Shayok valley. This large tract of country, (in all an area of about 12,000 square miles), had been triangulated in previous seasons, and was found to embrace all sorts of ground, from an altitude of 27,000 feet, down, in a few cases, to 8,000 feet above the sea; though seldom under 10,000 feet. It included, at least, 350 square miles of glaciers, for the most part of the larger kind. There is hardly any portion of the Upper valley of the Indus without glaciers, but they are largest and abound most near the great Himalayan and Karakoram ridges.

Gold.—"The Indus" says Captain Montgomerie "and several of its tributaries, are also known to produce gold. The gold washing is said not to be valuable, but it does sometimes give as much as 1 or 2 small rupees a day to a man, though a most barbarous method is employed in washing the earth. This earth is taken from the detritus, which, I think, now generally lies above the highest flood line. After two or three washings, a black, heavyish kind of sand is left, with the pieces of gold scattered here and there. As far as my own experience goes I should say it was not a profitable business, for, after half an hour's washing, I only got five very tiny nuggets, hardly worth an anna, and I had, at the same time, the benefit of the assistance of an Australian gentleman. This gentleman, however, thought that something might be done by investing in a cradle and apparatus. He said that a substance like the black sand mentioned above had proved valuable in Australia."

Expedition against Gilgit.—The Maharajah laid in a large supply of food at the forts of Astor and Boonjee with the view of making an attack on Gilgit. Previous expeditions had failed from the difficulty of getting supplies in such an impracticable country. In June and July 1860 a force of 4,000 men moved towards Gilgit. The fort of the place was surrendered after a feeble resistance. The force then advanced up the valley to Shirni, or Shirwat fort, which also capitulated. Yasseen met a like fate. The son of the Goraman made his escape over the mountains to the west and on into Badakhshan. The Goraman himself, who died in 1857, was well known in the whole country between the Indus and Cabool as an *Adamkhor* or man-eater, from a habit which he had of catching all strangers that he could for the purpose of exchanging them for the large dogs so much prized in that quarter. Thus the conquest of Gilgit was effected without loss of life. The presence of the Maharajah's force

overawes and keeps in check the robber clans of Nagar and Hoonza. Three thousand men were left in the valley. The expedition had a wholesome effect on all the petty tribes between Gilgit and the Cabul territories, and ultimately may be of assistance in keeping the recusant Swat tribe in check. After the expedition the Maharajah received presents from all the chiefs between Gilgit and Kafiristan. Among others was a live male specimen of the Markhor, which was introduced into the full durbar guided by four men with guy ropes. It was a handsome animal of a light fawn color, with towering horns and a long beard.

Kyangs.—The wild horses known by this name are frequently met with in Cashmere. They are said to bray. The skin has a black mark all the way down the back, but not the least sign of any stripe on the shoulders. Sometimes the tail reaches nearly to the ground. The ears and tails are like those of a mule but the animals are very much larger than the wild asses of the salt range.

Borax.—The Kashmir and Ladak road is, perhaps, the only road by means of which the Himalayan Borax may be carried down profitably to the sea. Laden ponies can go along it even now. On all other roads on which the carriage—through our own hills—is by coolies, sheep and goats, it has not been found worth sending to England, though the Borax is to be had in Ladak at 1 rupee per maund, and sells in England at about Rs. 33 per maund, (£95 per ton.)

Prospects of the Survey.—With favourable weather the triangulation and topographical work will be carried up to the Chinese frontier. It may also be joined to that of Russia and thus accomplish the measurement of the arc between Cape Comorin and Nova Zembla, an arc of nearly 70 degrees. The only gap is one of a little over 5 degrees of Chinese territory. The operations of the Cashmere series extend beyond Latitude 36° and the Tobolsk survey extends to below 42°.

THE JHELUM RIVER.

Punjab Records.

A memorandum on the river Jhelum with a view to its navigation in the low season, is drawn up by Lieutenant Forster, I. N., in February 1861.

The Jhelum, after passing the town of that name, flows to Pind Dadun Khan, thence to Koshab a distance of 45 miles, and thence to its junction with the Chenab at Trimmo Ferry, a total distance from Jhelum of 132 miles in a direct line, increased by the windings of the river to upwards of 200. The breadth of the stream is from 250 to 300 yards, being in some places as much as 700 and in others only 40 or 50. The navigable channel is 40 to 80 yards, but sometimes only 25 or 30. The current averages 1½ miles an hour and seldom exceeds 2. The greatest depth is 21 to 22 feet and the least 18 inches. The average is from 5 to 7 feet. No rocks or stones exist in the course of the river except at the foot of the salt range and at Jhelum. Snags are met with below Koshab. Occasionally the channel widens and becomes shallow; the two worst places of this description are 20 miles and 42 miles above Trimmo. Steamers drawing 2 feet of water can ascend to Koshab at all seasons of the year. From that town to Pind Dadun Khan and Jhelum vessels of only 18 inches draught will be required.

The Chenab, from Trimmo to Mooltan, is navigable all the year round by steamers not exceeding 2 feet in draught. The distance is about 80 miles. The navigation is easier than that of the Jhelum. The current averages 2½ miles an hour, and sometimes more. In December 1860 the steamer *Assyria*, drawing 3 feet 2 inches, ascended the Chenab and entered the Jhelum for a distance of ten miles. She passed some of the shallows, however, with difficulty.

The Jhelum might be deepened somewhat, but till this is done steamers with a draft of 18 inches only will be requisite. Should the draft exceed this the navigation must be closed for a month or two every season. As the channels are constantly shifting no system of buoys would answer. The only plan would be to have a pilot every 20 or 25 miles. Pind Dadun Khan and Jhelum would be the best fuel stations. The dimensions recommended for steamers to ply on the Jhelum are;—Length 140 to 145 feet; Breadth of beam, 30 feet; Depth of hold 4 feet to 4·6; Draught when laden not to exceed 1 foot 6 inches; Engines, of 50 horse power, or sufficient to propel the vessel 11 miles an hour. Vessels with a spoon bow and no keel answer well on the Indus and should be adopted on the Jhelum. The material should be *homogeneous iron*. When the river was surveyed in 1860 the depth of water was said by the natives to be much less than usual.

ROADS IN BENGAL.

1860-61.

A Report is published by the Bengal Government on the works carried out from the Amalgamated District Roads' Fund in 1860-61.

History of the Local Funds.—On the 23rd of August 1816 an Act was passed by the Supreme Government for "levying a Toll on the passage of persons and property over Rivers and Lakes." The Act laid down that after meeting the charges of the Ferries the surplus receipts should be applied for the maintenance of an efficient Police, the safety and convenience of Travellers, the facility of commercial intercourse, the expeditious transport of troops, the repair and construction of roads, bridges and drains, the erection of seraes and other works of a like nature. In 1831 the Court of Directors objected to "the appropriation of particular sources of revenue to particular charges" and directed that the Ferry collections should be brought to account as general revenue and the expenses connected with them as public charges. Against this decree the Government of India protested. The orders of the Court were held in abeyance, and pending a reference Home, the Government of India issued a Resolution based on a representation from the Government of Bengal, stating that the "Surplus Ferry collections could not equitably, even if legally, be appropriated to any other than local objects of utility; and that the expense of the grand works, undertaken with the impression that the entire Ferry Funds were available for them, must be defrayed from the general resources of the country." This was duly reported to the Court of Directors, but it was not till 1838, or nearly three years after this expression of opinion, that a reply was received by the Government of India. The Court then observed that they acquiesced in the doubts entertained in regard to the policy of raising any part of the general Revenues by means of Tolls collected at Ferries; and that the application of the principle to the collections already made, should be determined by the actual provisions of Law. They accordingly directed that the surplus collections already made, should be expended on the most useful objects compatible with the Act; and that future collections should be restricted to the amount requisite for the attainment of such objects, "so that beyond that amount, relief might be afforded to the Public." The Ferry Funds were then placed

under the management of local Committees. Bengal, excepting the non-regulation districts and Cuttack, was divided into nine Unions, each consisting of several districts. In 1855 this system was modified. The Local Funds were increased by the addition of the net income of the Tolls levied on the Nuddea Rivers and the Calcutta Canals ; and the allotments were made not as before in equal portions among the districts, but in such proportion as circumstances suggested. In 1857 the Committee system was abolished in certain districts and the duties were transferred to the Magistrate. At the end of 1859 Civil Engineers were appointed to those districts in which there were works of magnitude and importance to superintend, on salaries of from Rs. 300 to Rs. 500 per mensem, defrayed out of the Ferry Funds.

Distribution of Ferry Funds.—Commissioners of Divisions submit to Government at the close of each official year, a Sketch Estimate showing the works proposed to be undertaken during the coming year, the estimated cost, the necessity for the works, with other particulars of a like nature. After a careful review of all circumstances, the Lieutenant-Governor allots to each Commissioner, with reference to the requirements of his Division, and in consideration of his most pressing wants, such an amount as he may be able to assign, with justice to other Districts. With the funds thus provided, the Magistrate carries out the projects which may have been sanctioned for the improvement of the communications in his District ; working under the general control of the Commissioner, who is aided by the professional advice, and, if need be, assistance of the Superintending Engineer in the Public Works Department.

The Amalgamated District Roads' Fund includes the whole of the Funds placed at the control of the Lieutenant Governor for Local purposes. It consists of the Local Fund and the General Fund. The former consists of the Ferry Funds, the Tolls on district Roads, the Convict Labor Fund, the Cattle Trespass Fund, the Shahabad Road Cess, and Donations. The General Fund consists of the net Annual Surplus from the Tolls of the Nuddea Rivers, and from the Calcutta and Eastern Canals, after providing for Establishment, Repairs, and Improvements ; and of the difference between the total amount of the aggregate Local Funds as returned by the Accountant, and the total amount of the sums allotted by Government to the several Districts. The Local Fund is appropriated to the repairs of District Roads in general, and to making such new Roads, of the same kind, as it may be practicable to make, after providing for the repairs. The

General Fund is for the most part appropriated to opening out and maintaining Feeders, in connection with the several Railways now open to the Public or in progress; and to the construction of other works of general importance. The amount available for distribution in 1860-61 was Rs. 13,13,599, which was made up as follows:—

Local Fund.

1.	Net Ferry Collections	Co.'s Rs.	3,11,875
2.	Tolls on District Roads.....	„	4,797
3.	Convict Labor Fund.....	„	3,00,017
4.	Cattle Trespass Fund.....	„	1,19,815
5.	Shahabad Road Cess.....	„	34,441
6.	Previous year's balance...	„	2,18,185
		Total Co.'s Rs.	9,89,130

General Fund.

1.	Toll Collections.....	Co.'s Rs.	1,78,103
2.	Balance in hands of Magistrate	„	1,00,078
3.	Undistributed Balance.....	„	46,288
		Total Co.'s Rs.	3,24,469

Local Fund.....	Co.'s Rs.	9,89,130
General Fund.....	„	3,24,469
	Grand Total Co.'s Rs.	13,13,599

In allotting these Funds, a surplus of Rupees 2,39,660 was taken from the *Local Funds* of thirty-one Districts, which did not require the whole of their Funds to be expended on local works; and this sum was added to the *General Fund.* On the other hand the Local Funds of six Districts were aided by contributions from the *General Fund* to the extent of Rupees 31,354. The result left the *Local Fund* at the aggregate amount of 7,80,824 Rupees; and the *General Fund* at 5,32,775 Rupees. The whole of this *Local Fund* was at once allotted amongst the several Districts; and from the *General Fund* the Lieutenant-Governor at the commencement of the year authorized an outlay of 3,96,606 Rupees. Subsequently, as occasion required, minor sums were allotted; leaving at the close of the official year a balance of about 49,000 Rupees in hand.

General Fund Works.

These works consisted in 1860-61 exclusively of the construc-

tion of new of the continuance of already sanctioned railway feeders. The roads of this description in progress were as follows:—

East Indian Railway.—*Bhaugulpore Division.*—Road from Chuckie to Luckeserai Railway station, 50 miles—in the charge of a special Government Engineer,—estimated cost Rs. 1,32,500; or as a fair-weather road Rs. 50,000 in addition to the Rs. 12,000 already spent.

Muddipoorah to Bhaugulpore station, 60 miles—progressing rapidly—11½ miles to be finished in 1861, as a bridged and unmetalled road.

Kurruckpore to Barriapore station, 13 miles. Under the charge of a railway Engineer—commencement postponed—to be completed before the opening of the railway to and beyond Barripore.

Patna Division.—Mozufferpore to Hazeepore, 34 miles—transferred to the Department of Public Works, as an Imperial road.

Sasseram to Peeroo, 37 miles—an important road—completed as a bridged and unmetalled road—four main bridges constructed.

Nasregunge to Bhojepore, 28 miles—in connection with the Soane, the new Sasseram road, the Railway and indirectly with the Ganges River—9 miles of earth-work completed—should be nearly completed by the end of the rains 1861.

Rajshahye Division.—Sooty (on the Bhaugirutty near junction with Ganges) to Pakour station, 13 miles—two miles and a half of earth-work completed—should be all finished by the end of the rains.

Jungypore on the Bhaugirutty to Moradoi station, 15 miles—2 miles of earth work completed by the Assistant Magistrate—road transferred to the Railway Engineer—nine miles more completed—should be ready for traffic by the end of the working season.

Burdwan Division.—Sooree to Ahmedpore station, 12 miles—in good order—five miles thoroughly metalled.

Elambazar to Soorool station, 9 miles—completed in 1859—metalling renewed—one culvert finished—8 miles of uninterrupted good road.

Cutwa to Burdwan station, 33 miles—nothing yet done.

Culna to Pandooah station, 17 miles—metalling completed—a suspension bridge in course of erection over the Barcool creek.

Satgatchia to Mymaree station, 7 miles—nearly completed as a fair weather road.

Bancoorah to Paneeghur station, 38½ miles—not metalled, and partly under the ordinary flood level, but will be improved.

Bancoorah to Raneegunge station, 25 miles—good and passable for carts in 1859—metalling now finished.

Nityandipore to Ghooshkhara station—nothing done.

Eastern Bengal Railway.—*Nuddea Division*—Kishnagur to Bagoolah station, 11 miles—three-fourths completed—will be available for traffic before the opening of the Eastern Bengal Railway in May 1862. Santipore to Ranaghat station, 11 miles—line laid out in November 1860—will be finished before the opening of the Railway.

Kotechandpore to Kissengunge station, 23 miles—line laid out in February 1861.

Bongong to Hahmedpore station, 20 miles—line laid out in February 1861.

Furreedpore to Kotechandpore, 70 miles—country very difficult—operations suspended.

Jessore to Bagoolah station, 40 miles—survey completed.

Ishapore to Bager Khall—intended to connect the villages along the river with the Railway—the Company to construct short cross roads of access to the stations.

Jenadah to Chow-Dangah station—survey not quite completed.

Gorakala Ghat to Alumdangah station—to be commenced shortly.

The progress of the District Roads work in the Nuddea Division has on the whole been satisfactory. The Survey operations have necessarily occupied a large portion of the working season. The programme of this system of Feeders to the Eastern Bengal Railway, and the execution of the project as a whole, have been designed and will be carried on with the co-operation of the Railway Officials. To promote the successful and early completion of the works, a second Divisional Engineer has been appointed on a salary of 500 Rupees a month.

Rajshahye Division.—Commercolly to Kooshtea terminus, 7 miles—whole of the embankment raised above flood level—one-fourth of the culverts and bridges finished—the road to be continued to Pangra Thannah.

Comedpore to Kooshtea terminus, 8 miles—six miles of earthwork to be finished—not to be metalled. Berhampore to Alumdangah station,—to be carried through Jellinghee—to be commenced after the rains.

Rampore Bauleah to Jeagunge, 24 miles, including the river—detailed estimate not yet received—road to be carried from Murcha Ghat opposite Rampore Bauleah along the portion of the existing road to Berhampore thence to a point between Hurreampore and Titoolya and on to Jeagunge.

Seebpore Haut to Kooshtea—a short feeder to be made—not commenced yet.

MUTLAH RAILWAY.—Roads from Koomarkholla on the Culpee road to Sonarpore, from Rapore to Sonapore, and from a point on the Mutlah road via Mullung, to the proposed station at Chapatta on the Calcutta side of the Piallee river will be constructed by the Railway Company's officers under advances supplied by Government.

LOCAL FUND WORKS.

Very little can be said regarding the works executed with the assignments granted from this Fund. They consist of the usual surface repairs of Roads, removal of obstructions to traffic, renewal of rustic Bridges, and other works of a similar nature, regarding which nothing new or interesting can be reported. No great changes have marked the progress of these ordinary works during the past year. The report says in conclusion. "In reviewing the operations of the year just closed, it will be seen that the works have been carried on with some system; and that the results already attained, are on the whole satisfactory. Greater progress may reasonably be expected next year, much time having hitherto been spent in preliminary Surveys. A close attention has been given to the various local collections which have been brought into the "Amalgamated District Roads' Fund," making the aggregate amount reach the unprecedentedly high sum of thirteen lakhs of Rupees, which is upwards of seven lakhs of Rupees more than the collections of the past year. Care will be taken to make the most of these Funds, and to expend them to the best advantage in improving existing communications, and in forming new lines of Road which lead to Railways open and in progress."

TEA CULTIVATION IN ASSAM.

Bengal Records, No. XXXVII.

IN a despatch dated 26th May 1859 the Secretary of State calls for information on the cultivation of tea in Assam and Cachar. The agent to the Governor General on the North East Frontier accordingly furnishes the Government of Bengal with a series of reports containing the information required.

Kamroop.—Captain Rowlatt's report of the 6th October 1859 shews that the extent of land granted away for the purpose of tea cultivation in his division then amounted to 12,207

acres, of which only 297 acres were under cultivation, yielding in 1859, 6,160 lbs. Of the largest grant, consisting of 9,326 acres, no part was cultivated. The experiment was commenced in Kamroop about 1854. It was found that though the tea plant did not grow so luxuriantly in Lower as in Upper Assam it yielded a sufficient produce to make the cultivation fairly remunerative. The want in Kamroop as elsewhere was labour. Captain Rowlatt says;—"By raising the assessment, the profits on ordinary cultivation would, of course, be decreased. This I think, in the present state of affairs, is desirable; for cultivation of the common crops is now so profitable, that all classes take to agriculture alone as a means of subsistence; all other means of obtaining a livelihood are therefore neglected; trade is entirely in the hands of foreigners; handicrafts of any kind are not pursued; and labourers for hire, and even domestic servants, are procurable only with difficulty, and at high rates of wages. By inducing the people to take to a greater variety of employments, the country in general would certainly, I think, be benefited; for when all alike pursue agriculture as the sole means of subsistence, the people must in a great measure not only be dependent on foreign markets for taking their surplus produce, but also purchase all manufactured goods from without the Province. If a greater variety of occupation was in vogue, the local markets would improve, and facilities be afforded for carrying on many branches of trade, and speculations of various kinds, which now it is quite impossible to conduct. It may also be noted, that if what I state is correct, not only would the country be benefited by a moderate increase of rate in the land rent, but that a corresponding increase to the Government revenue would be the consequence—a result at the present time of no slight importance." He points out, however, that Kamroop is already more highly assessed than the neighbouring districts and that the rates should not be enhanced until they have been raised in the other districts. He recommends the prohibition of the indigenous growth of opium, and the redemption of the land tax as in Darjeeling.

Luckimpore.—Captain Bivar's report shows that in Luckimpore the extent of land granted was 14,038 acres, of which 1,000 were under cultivation, producing in 1859 282,000 lbs. of tea. This was better than Kamroop but not so large a yield as would be obtained when the land was in full productiveness. He believed that Rs. 2-8 would be an equitable equivalent at which the redemption of the land tax might be fixed, the whole amount being paid down at once. Colonel Jenkins recommended Rs. 5 at first but afterwards saw that his standard was

too high. In Luckimpore there were 228,634 acres of waste land still available for Tea plantation at the date of report. The measures recommended for the improvement of the cultivation are the execution of Government works as far as possible by labourers and artisans imported by Government officers for that purpose, the redemption of the land tax at Rs. 2-8 per acre, and the establishment of efficient means of communication by despatching a steamer to Dibrooghur monthly on a fixed date. Colonel Jenkins recommends the scheme of sending workmen of different castes from the Jails of Bengal to the Assam Jails, and the employment of the Assamese convicts on the repairing and clearing of the roads and drains of the different stations, as a means of setting free a certain amount of labour for the planters. He does not think Captain Bivar's suggestion as to the importation of labourers and artisans quite practicable.

Durrung.—Captain Comber's report shews that the cultivation in Durrung was only 375 acres, yielding about 22,400 lbs. The chief difficulty was the want of labour. Regarding breaches of contract he says;—"Nothing is more common than men taking advances to labour, and decamping before half the period of their agreement is expired; to enforce a completion of which through our Courts is very tedious and expensive; but I am not aware that anything can be recommended to facilitate the recovery of such advances. Under the rules for the administration of criminal cases in Assam, such cases can be tried *vivâ voce*, and it is only necessary for the party to point out the delinquent." The cultivation of Tea did not in any way prove harassing or irritating to the people but on the contrary it was most beneficial as affording the opportunity of earning an honest and fair livelihood to the men, women and children. The waste lands were of such extent that there was no fear of the cultivation ever encroaching on the rice-growing and other lands of the Assamese inhabitants.

Nowgong.—Captain Lloyd's report shows that the amount of land taken up was 11,034 acres. The produce of tea was small, as all the factories were of late establishment. He recommends the gradual increase of the assessment. Of the effect of the cultivation on the country and people he says that it "is most favourable; large sums of money are put into circulation, the condition of the people is improved, and they are encouraged and instructed in habits of regular industry and thrift."

Seebsagur.—This is the most important division as regards tea cultivation, partly from its comprising the principal plantations of the Assam Company, partly from its comparatively

large population, and also from the large area of waste lands conveniently situated for the conveyance of produce to the Berhampooter for transport to Calcutta. Captain Holroyd's report shows that 12,489 acres were taken up by private parties in 1859. The extent of land taken up by the Assam Company is not mentioned, but the area cultivated by all parties is put down at 5,217 acres. The quantity of tea produced in 1857 was 846,249 lbs., and it was expected that the produce of the next season (1860) would be 1,500,000 lbs. The measures recommended for the improvement and extension of the cultivation were nearly the same as in the divisions already noticed.

General Results.—Colonel Jenkins found that the total extent of land under cultivation in 1859 in Assam was 7,599 acres, the produce of which was 1,205,689 lbs. An acre of land well cultivated will give six maunds of tea and upwards, and if the land under cultivation in 1859 only gave the low average of five maunds per acre the produce would have been upwards of 30 lakhs of lbs. Regarding the proposal to raise the assessment Colonel Jenkins says :—"I cannot believe that any measure short of such a severe taxation as the Government would certainly not sanction, could have any material effect in increasing the command of labour; and it seems evident to me that any great increase in the assessment would have the effect of decreasing the quantity of land cultivated, to the certain loss to the Government."

The cultivation was pushed to a greater extent than the existing supply of labour warranted. The consequence was that much of the produce was lost for want of hands to gather the leaves although most liberal payments were made to the pickers. The commencement of tea operations in Cachar and Sylhet instead of drawing off a number of speculators from Assam had the effect of a drain on the supply of labour in the latter province to meet the demand in the two others. Regarding the cultivation of the Poppy Colonel Jenkins says;—"As a further remedy for the scarcity of labourers, all the local Officers have proposed the prohibition of the cultivation of Poppy in Assam, and I concur with them in advocating this measure, not so much that I think Opium has the very ill effects most people attribute to it, but because the cultivation employs a very great number of hands to no purpose, as generally Government Opium can be introduced at a less expense, and because the gathering of the Opium and the storing it in each house in the province leads to its being used by the children and women, and this early habit of using it, induces in mature life an over indulgence in a drug which is as poisonous as Gin when taken in too large quantities; and besides by the introduction of the Government Opium we

have greatly lowered the price of the indigenous drug (kanee) and diffused and encouraged its consumption." The number of factories established in Assam up to the end of 1859, the extent of area cleared, and the production are represented in the following abstract:—

Abstract of the Tea Factories in Assam in November 1859.

Division.	No. of Factories.	Total area in acres.	Area cleared.	Out-turn in 1858-59.	Remarks.
Kamroop, ...	10	12,207	297	6,160	4 factories produced no tea.
Durrung, ...	3	3,783½	375	23,280	for 1859.
Nowgong, ...	14	11,034	Unknown.	Unknown.	48,000 lbs. produced in one estate.
Seebsagur, ...	16	4,778½	3,967	6,93,249	belonging to the Assam Company.
Ditto	15	90,180	5,227	1,53,000	belonging to private planters. 12 produced no tea.
Luckimpore, ...	10	14,038	1,700	2,82,000	including 1,20,000 lbs. of Assam Co.'s tea.

Then follows a lengthy correspondence between the local officers of Government, the Tea planters and the Government of Bengal, of which the following is the substance.

Views of the Government of Bengal on the foregoing questions — Opium.—The opium question came before Government in 1840 when it was determined not to interfere with the cultivation of the poppy in Assam. Twelve years after, the question was again agitated by the Assam civil officers, supported by Mr. Mills and the Board of Revenue who were unanimously in favour of such interference. In 1855 the then Lieutenant Governor recorded his opinion against the measure. In 1860 the Government of Bengal represent that the question is not one of prohibiting the consumption of opium in Assam, which would be unwise and wrong even if it were possible, but of introducing into the province the system of excise upon opium which is in operation in all other parts of India. On such a point the local officers must be best informed and the Government decide that if they have the power practically to enforce the measure they will be prepared to sanction the attempt being made. The object is not to prohibit but to restrain consumption within practical and

legitimate limits so far as possible. The statistics of the Abkaree department show that Behar opium is in demand in Assam, and that consequently there will be less difficulty than there once was in preventing the local manufacture. When opium cannot be got without paying a considerable price in money for it the consumption will be diminished among children and among the very poor, the two classes with whom opium eating is a mischievous abuse.

Land Tenure.—With regard to the Land Tax the Bengal Government agree with much that has been advanced, and mention that the general question is under consideration.

Assessment.—The Government consider that the land revenue should be fixed at a proper rate on general considerations. The proposal alluded to in the letters of some of the local officers to raise the assessment in order to induce labourers to seek employment in the Tea plantations, is condemned.

Labour.—The cultivation of Tea is very profitable and wages should be proportionally high. But as the local supply is very limited recourse must be had to the importation of labourers from other parts of India, and such a movement must be initiated by those immediately interested. Some such system as that adopted by the sugar planters of Mauritius and other colonies, might be introduced. Whatever system is decided upon the Government will readily do whatever they legitimately can to facilitate the object in view.

Export Duty.—A proposal was made to exempt Assam Tea from the three per cent. export duty, but the cultivation is no longer an experiment and can well bear the duty. If, however, it can be shown that such exemption would have any appreciable effect in encouraging the cultivation, the exemption of Assam tea, at least for some definite term of years, would be recommended.

Meetings of Planters and their results.—On the 30th April 1860 the Tea planters of Luckimpore held a meeting at which resolutions were passed to the effect that the land tax in the province was too light, and that the raising of it would tend to improve the ryots by making them acquire habits of industry and cultivate rice to a greater extent, that the cultivation of tea did not yield more than a fair return and not more than five rupees a month could be offered for labourers, and that any system of immigration to be successful must be generally supported throughout the Province. The terms suggested in connection with the last measure were that the labourer should be engaged for a term of at least five years; that the law with regard to breach of contract should be rendered effective; and that suita-

able transport should be established to convey the labourers to Assam.

In reply to the letter conveying the report of this meeting, the Government say that the increase of the assessment would not be advisable, on the ground that where any quantity of waste land is available rent free for long terms a heavy tax cannot be imposed on old cultivated lands. But as it is possible that the tax might bear a moderate increase the Commissioner of the province is requested to turn his attention seriously to the subject, with the view of devising a tax that would not discourage the employment of labour and capital in any way, whether upon the cultivation of land, or for any other profitable purpose.

Another meeting was held on the 16th of June 1860 by the Tea planters of Seebsagur. The establishment of an emigration agency in Calcutta was suggested; also, the improvement of the law relating to breach of contract, the improvement of road communication, and the organization of a Steam Company with a Government guarantee.

The volume closes with an assurance that the Government of Bengal have recommended the sale of tea lands in fee simple.

ADMINISTRATION OF THE HYDERABAD ASSIGNED DISTRICTS.

1860-61.

In December 1860, the Treaty of 1853 underwent modifications, by which territory in Berar to the extent of 32 lakhs of Rupees was assigned by the Nizam to British management. To this the present Report, by Lieutenant Colonel Davidson, the Resident, is confined.

Judicial.—*Civil Justice.*—An additional Assistant's Court was sanctioned for West Berar, and all Assistant and Extra Assistant Commissioners who had passed the higher standard of examination were empowered to try Civil Suits to the extent of Rupees 5,000, instead of Rupees 1,000, to which their jurisdiction was previously limited. The area of East Berar is 7,000 and of West Berar 7,360 square miles under the following Courts:—

Courts.	*No.*	*Jurisdiction.*
Deputy Commissioners ...	2, ...	Unlimited and Appeals from Subordinate Courts.
Assistants with full powers	2,	Rupees 5,000, original suits.
Extra Assistants ...	4,	„ 1,000, do.
Tehsildars	17,	„ 300, do.

At the close of 1859 there were pending 244 original suits and in 1860 there were filed 2,273 making a total of 2,517—of which 1,764 were disposed of—1,153 in favor of the Plaintiff, and 253 in favor of the Defendant. 397 cases were amicably adjusted in favor of the Plaintiff—36 suits were withdrawn, 65 were disposed of, and 2 transferred, leaving at the close of the year arrears (253), slightly in excess of those (244) of the previous year.

The value of property litigated was Rs. 15,35,425-13-4 and the cost of litigation, Rs. 13,185-10-8, or 0-13-9 per cent. The average value of each suit was Rupees 610-0-4; the average costs amounting to Rupees 5-3-10. The whole of the above statistics were materially affected by a pauper suit filed in East Berar for 11 lakhs of Rupees, but eventually brought to an amicable settlement. The average duration of suits was 44½ days. In 1859 it was 82½. Of 1,210 witnesses summoned, only 55 were detained for more than a day.

In the Commissioner's Court of Appeal there were 67 Berar cases, of which 47 were pending at the close of the year. In the District Appeal Courts there were 271 cases. Of these, 195 were decided on their merits, the orders of the lower courts having been confirmed in 122, and reversed in 73 cases. Of the remainder 9 were amicably adjusted, 5 remanded for re-investigation, 8 dismissed for default, and 5 transferred, leaving 49 undecided at the close of the year. The number last year amounted to 60. One hundred and sixty-three persons were imprisoned for debt during the year, at the close of which 15 remained in confinement.

Criminal Justice.—On the whole crime decreased, but there was an increase in crimes of a heinous nature. There were 32 cases of crime of the 1st class of atrocity against 26 in 1859; 38 of the 2nd class; 917 of the 3rd class and 1,194 of the 4th class, or a total of 2,181 against 2,283 in 1859. There were only 22 cases of dacoity against 47 in 1859. The value of property stolen is estimated at Rs. 75,957-6-2; but the proportion recovered at Rs. 11,817-8-11. The average amount stolen in each case was Rupees 83-3-1, in 1859 it was Rupees 72-4-10. Of 2,181 reported crimes, the Police failed altogether to trace 645, or nearly 30 per cent. Of 1,647 cases committed for trial during the year, 268 resulted in total acquittal; in 1,324, convictions were obtained, and 55 remained for trial.

Police.—Their operations were not altogether satisfactory because of the intermixture of Jagheer estates with our territory, which the new Treaty has now corrected. The Commissioner was about to submit a scheme for the reorganisation of the Police.

Jails.—The daily average number of prisoners was 607, against 691 in 1859. Their average cost was, per man, Rs. 41-9-3. Their health was good.

Revenue.—Owing in a great measure to the collection of the balances of previous years, and to extended cultivation the land revenue which was in 1859 Rs. 24,27,617-3-7 rose to Rs. 29,61,722-3-9. The Abkarry yielded Rs. 2,55,088 in 1859-60 and 2,98,933 in 1860-61; the salt wells and sayer Rs. 31,604 in 1859-60, and Rs. 32,628 in 1860-61; Stamps 16,427 in 1859-60, and Rs. 37,622 in 1860-61; Fines, Rs. 11,888 in 1860-61; Intestate property Rs. 7,773; Refunds Rs. 1,952, Income-tax Rs. 8,661-7-8, credited to the imperial revenues, and Miscellaneous Rs. 59,509. The local funds yielded Rs. 81,499. The Inam Commission was abolished.

Of Education nothing is said, save that attention will be directed to it.

Of Public Works the most important were the Deputy Commissioner's Cutcherry at Oomrawuttee, now completed, and the Cutcherry at Akolah, nearly finished. As to Railways, the Nizam's Minister gave Rs. 5,000 for the preliminary survey of a line from Sholapoor to Hyderabad. Beyond this all that is promised is a free gift of the land requisite and magisterial powers within the Railway fences; the Hyderabad capitalists may come forward after the project is once started, but the Income Tax makes them view with distaste any securities under the sanction of our Government; it is certain that no money will be forthcoming without the guaranteed interest of 5 per cent. Orders have been issued for the commencement of the line.

Finance.—The Revenue from all sources realized during the year amounted to Rs. 29,61,722-3-9, of which Rupees 25,11,415-5-1 are on account of Land Revenue. The Civil charges of all descriptions, exclusive of Public Works, but comprising Civil Pensions, Contingent Expenses, Loss by Exchange, &c., amounted to Rupees 7,94,363-10-7. The expenditure upon Public Works, inclusive of Salaries and Contingencies, was Rupees 1,68,471-15-3. The financial position of the districts has been improving year by year.

Political.—With a view to simplify the arrangements of the two Governments, to determine certain matters not dealt with in the Treaty of 1853, and to give all possible solemnity to certain acts, marking the high esteem in which His Highness the Nizam is held by Her Majesty the Queen, modifications of that Treaty to the following purport, agreed upon between the Viceroy and Governor General on behalf of Her Majesty, and the Nawab Ufzul-ood-Dowlah Asoph Jah Bahadoor, were ratified by His

Excellency the Viceroy and Governor General on the 31st day of December 1860. The Territory of Shorapore was ceded in full sovereignty to His Highness the Nizam: the debt due by His Highness to the British Government, amounting to almost (50) fifty lakhs of Hyderabad Rupees, was cancelled: all account of the receipts and expenditure of the Assigned Districts, for the past, present or future, His Highness agreed to forego; but the British Government on their part stipulated to pay to His Highness any surplus revenue that may hereafter accrue after defraying the expenses of the Hyderabad Contingent and of other charges guaranteed under the Treaty of 1853, together with all future cost of Administration, the amount of such cost being entirely at the discretion of the British Government. To provide for these payments, such additional Districts, adjoining those already assigned to us in Berar, as would suffice to make up a present annual gross revenue of thirty-two lakhs of Rupees British currency, were to be held in trust by the British Government; all the districts in excess of this assignment hitherto administered by us in the Raichore Doab and on the Western Frontier of the Nizam's dominions being restored to His Highness. The estimated Financial result of this arrangement is that we have restored districts yielding a net revenue of Rs. 21,49,822 and received lands yielding Rs. 8,20,833 giving the Nizam a net increase of Rs. 13,18,988. Notwithstanding this liberality the Nizam refused to give the British Government unreserved control over the revenues of the Berar provinces, and to allow them to be administered by the Nagpore Commission. He chafed at the idea of these provinces being annexed to a Mahratta State (though under British rule) from which his ancestors had wrested them after years of contention. The hereditary hatred, the implacable mistrust and jealousy which have so long existed between the Mahomedan and the Mahratta, are strong as ever at the Hyderabad Durbar. His Highness also urged that, while his Districts were administered by the British Resident at Hyderabad they were administered by an Officer of his own Court. His objections were acquiesced in. The advantages accruing to the British Government are these. The inconvenient strip of land belonging to the Nizam on the left bank of the Godavery and its confluents, containing the Talooks of Sironcha, Albaca, Cherla, Rackapully, and Budrachullum, so necessary to us to secure the uninterrupted control of the Hydraulic works on the Godavery, has been ceded to the British Government in perpetuity. The navigation of the Godavery to its junction with the Pranheeta and of the Wurdah and Pranheeta Rivers, has been declared free, and all transit and customs

duties have been abolished. Land in the Raichore Doab for the Railway and Madras Irrigation Company has been guaranteed and the Hyderabad Durbar have stated that they will be prepared to give land elsewhere in the Hyderabad Territory for similar purposes.

Honorary rewards were conferred on the Nizam and his Durbar for services in 1857 and 1858. The minister Mookhtar-ool-Moolk Salar Jung Bahadoor, received a killut of the value of Rupees 30,000, with a khureeta from the Secretary, and the acknowledgment on the part of the Government of India that great obligations are justly due to this able minister, for his services during the mutinies, and that the ability, courage, and firmness with which he discharged his duty to the Nizam, and opposed the counsels of those who would have brought disgrace and ruin upon His Highness, are highly appreciated, and entitle him to the most cordial thanks of the Government of India.

Cotton.—Should the visit of the gentleman, (Mr. Sillar) lately deputed by the mercantile community of Bombay, bring to light any thing of importance not yet appreciated, the matter will be at once taken up. The completion of the Railway will, of course, cheapen cotton in Bombay.

Forests.—There are Teak forests in East Berar in the Districts of Karinja and Tullygaom, and the strictest orders were issued prohibiting the cutting of these trees in the villages in which they grow. The largest teak forest in East Berar is in the village of Pathroat, formerly a Jagheer, and which has now been made Khalsa. In West Berar the teak is found in the hills about Booldanah and Dewulghaut: It is also found in the Hills north of the valley called the Satpoora Range, where it grows in a very wild state, and where only it is to be found of any size. The surface of the country here presents a most irregular mass of hills and deep valleys, often extremely precipitous, the hills rising from 200 to 1,000 feet generally. The Goand Rajahs or Hill Chiefs, Zemindars and Goands, claim a right to the teak timber in these hills, and the Goands, it is reported, have been from time immemorial in the habit of cutting and selling timber for their support. In the Assigned Districts, the conservation of trees has never been lost sight of, since 1855.

Survey.—In March 1861, Captain C. Anderson of Bombay began work and measured 53,000 acres to the end of April. The Survey will lead to a large increase of revenue.

There were 2,474 persons vaccinated and 13 per cent. of the cases failed. The cost of the establishment was Rs. 1,008 in the year. The following financial statement given in the Appendix, shews a surplus:—

Revenue and Expenditure of the Hyderabad Assigned Districts for the Years 1858-59, 1859-60, *and* 1860-61.

RECEIPTS.	1858-59.			1859-60.			1860-61.			DISBURSEMENTS.	1858-59.			1859-60.			1860-61.		
REVENUE—ORDINARY.										EXPENDITURE—ORDINARY.									
Land Revenue	39,96,984	7	7	39,04,195	5	9	34,10,413	2	7	General Department ...	3,13,650	12	10	3,21,260	3	5	3,02,107	10	2
Abkaree ...	3,14,247	10	8	3,84,644	14	3	4,62,526	14	9	Revenue and Judicial Departments	9,12,681	10	4	8,79,297	15	9	8,58,729	15	9
Salt and Saltpetre Beds ...	22,921	10	5	35,186	8	11	32,165	1	8	Military ...	27,35,153	14	8¾	26,82,431	10	9	24,21,038	3	5½
Sale Proceeds of Judicial Stamps ...	19,815	1	6	28,055	11	0	51,531	1	6	Miscellaneous ...	8,612	9	2	7,000	0	0	8,244	8	7
Miscellaneous ...	38,310	1	10	37,998	1	8	25,286	9	3	Total ...	39,70,098	15	0¾	38,89,989	13	11	35,90,120	5	11½
Total ...	43,92,279	0	0	43,90,080	9	7	39,81,922	13	9	EXTRAORDINARY.									
EXTRAORDINARY.										Settlement Officers and Surveyors ...	6,057	15	4	28,400	7	5	50,149	1	5
Miscellaneous	2,81,618	13	6¾	1,12,668	12	10½	2,36,333	14	3	Public Works Department ...	3,33,093	7	2	4,58,036	3	10	3,78,470	15	7
										Miscellaneous ...	3,74,150	7	9	3,81,730	9	6	1,64,628	14	4
											7,13,301	14	3	8,68,167	4	9	5,93,248	15	4
Grand Total	46,73,897	13	6¾	45,02,749	6	5½	42,18,256	12	0	Grand Total ...	46,83,400	13	3¾	47,58,157	2	8	41,83,369	5	3½

N. B.—The decrease in Revenue in 1861, is accounted for by the restoration, from the 1st March 1861, of the Raichore Doab and Dharaseo Districts.

Balance against His Highness the Nizam on the 30th April 1861, Rs. 5,45,718-15-5¾.

THE EASTERN NARRA.

Bombay Records, No. LX., New Series.

1859-60.

On the 20th of April 1860 Captain Fife, Superintendent of Canals in Sind, reports on the improvement of the Eastern Narra.

The scheme to increase the supply of water in the Eastern Narra was first brought forward in 1851. Then the difficulty was a want of sound knowledge regarding the revenue of Sind. The reports on the Narra valley itself were twenty-four years old. After much careful consideration, however, it was decided upon to form a large supply channel from the Indus at Roree, to throw an abundant supply of water into the Narra during the inundation period, and fertilize the lands for a rubbee crop, which was to be principally raised by people from the vicinity of the Indus, after they had reaped their khurreef crop each season. In addition to the supply channel, it was seen that numerous bunds would also be requisite to prevent the escape of the water into the deep depressions which existed among the sand hills of the eastern desert.

It however very fortunately occurred the same year that attention was drawn to the subject, that the natural floods of the Narra, which had produced the revenue of former times, recommenced, and during the eight years which elapsed before the supply channel was brought into operation, the valley of the Narra was six times more or less fertilized by a natural supply alone. It was then found that nearly the whole revenue was obtained from the spread of the water over the country, and the bunds and embankments, to prevent the escape of the water into the desert and increase its spread, were pushed on with all possible expedition, and completed with excellent and immediate effect, notwithstanding several accidents which occurred to them. The whole expenditure on these works up to 1st November last, including original cost, repairs, and maintenance of establishment, was Rs. 1,41,308-11-8. The total revenue realised during the same period, and what remained to be realised from the past inundation, amounted to Rs. 4,67,809-6-2.

When the first flood came down the Narra in 1851, the plain south of Mitrow was, with the exception of a few patches of jungle on the lowest ground near the river, a perfect desert; but since the floods commenced, jungle sprang up in every direction. In some places it was so dense as to be impenetrable,

and in others, where it was less dense, the ground became covered with a coarse grass called "Kull," which had the effect of weakening the soil, and rendering the cultivation inferior and unremunerative. The serious injury done to the land by over-flooding became apparent in the season of 1857 when the natural flood supplying the Narra came unusually late.

The supply channel and regulating bridge were completed in 1859, and the water was formally admitted on the 7th of May of that year. The inundation was an unfavourable one, being unsteady and less in volume than those of several previous years, but still the quantity of water furnished was large, though far below that of the natural floods which flood the valley at its head completely across. The water reached as far as Trimmo. There was no accident to the Bunds and embankments. The expenditure on the supply channel works, including the cost of the original surveys of the Narra and all establishments and the Mitrow Canal to 1st November 1859, was Rs. 7,98,595-11-4.

Regarding the cost of the canal works and the advantages expected from them the Chief Engineer of Sind says, in reviewing this report;—"Captain Fife states that the expenditure upon the supply channel has already amounted to Rs. 7,98,595 and that the bunds have cost 1,41,308 in all Rs. 9,39,903. This expenditure does not apparently include the cost of protecting the supply channel now in progress, nor certain other works, and probably the whole cost of the works for supplying the Narra valley will amount to about ten lacs of rupees, exclusive of the Mitrow Canal, estimated to cost Rs. 4,23,155. The revenues of the Narra for the nine years from 1852-53 to 1860-61, Captain Fife states to have been Rs. 4,67,809. During the previous nine years there had been no flood, and the revenue of the whole valley had, during those years, averaged Rs. 1,405 only; but in 1851 a flood came down for the first time for twenty years, and, with the exception of one year, floods continued annually for the next six years. The flood of 1851 yielded a revenue of Rs. 8,405, that of 1852, Rs. 20,928, and these results were wholly irrespective of Captain Fife's works; for the supply channel afforded no water till 1858, and none of the bunds were finished until the beginning of 1854; no effects could therefore have been produced by them on the revenue until the year 1854-55. If we assume that the floods of 1851 and 1852 produced average crops, such as might be constantly reckoned upon from a natural flood unaided by Captain Fife's works, we may estimate the actual return those works are likely to produce.

Omitting the two first years of Captain Fife's series, the average revenue of which was Rs. $\frac{8,405+20,928}{2}$ =14,666, the amount realised during the remaining seven years was Rs. 4,38,576

During those seven years there were four floods; therefore, deducting Rs. 14,666 × 4 =..... Rs. 58,664

the remainder due to the Narra works is..... Rs. 3,79,912

or per annum..... Rs. 54,273

The amount promised by Captain Fife was Rs. 52,500, or Rs. 1,773 less than the amount realised; but the estimated cost of the works was about half the actual outlay, so that the percentage which the receipts have borne to outlay has been rather less than 5½ instead of 11."

REPORT ON INDIAN ADMINISTRATION—MILITARY.

1860-61.

Officers' Hospital.—The Hospital for sick officers which was temporarily formed in 1857, was placed on a permanent footing so as to accommodate all sick and wounded Officers of the Army, Navy, and Covenanted Civil Service, both married (without their families) and single, who may wish to take advantage of the establishment during their stay in Calcutta.

The Hindoostani Class in Regimental Schools was established in 20 corps, and was discontinued in 6. There were 14 in which no class was established. Some of the men made good progress, especially in the colloquial.

During the year it was decided that 1 lb. of vegetables is to be allowed to each soldier without reference to cost. The Lahore and Mooltan Bullock Train for 216 miles conveyed 1,701 Europeans, and 2,488 maunds of baggage, from 5th October 1858 to 15th April 1859, at a cost of Rs. 67,251, of which 1,192 was realised for private baggage. The cost of carrying each European was Rs. 38-13-4, or annas 2-10½ per mile including baggage. In the Bullock Train Establishment in Bengal from May 1857 to December 1859 there was a deficit of Rs. 13,99,284. From that date to

April 1860 there was a surplus of Rs. 89,111, the receipts being Rs. 2,61,346 and the disbursements Rs. 1,72,234. A Topographical Survey of the Gwalior country by Captain Robinson was ordered. Arrangements were ordered for establishing Burdasht Khannas on the line of road taken by Troops marching in the Bengal Provinces, similar to those which have existed for some years in the North Western Provinces. They were established at Topechanchee, Doomree, Utka, Burkutta, Burhee and Chumparun. Condemned stores will henceforth be destroyed on the spot in presence of the Committee which rejects them. To reduce the number of Treasure chests, with their guards, payments were made by the Presidency Pay-Master by cheques on the General Treasury. Policemen were substituted for Military Guards in all posts not purely Military. Further to test the suitability of Darjeeling for European troops, as a permanent sanitarium, detachments of H. M.'s 6th and 19th Regiments were located in the new Barracks at Sinchal. The proportion of Horses for the permanent establishment of the Mounted Corps of the Army was fixed at 15 per cent. below the effective strength of men in every Mounted Corps in time of peace, with the further restriction that, whatever the effective strength of men may be, the total number of horses shall not exceed 500 per Regiment of British Cavalry, 175 per Troop of Horse Artillery, and 120 per Battery of Royal Artillery, and 105 per Battery of Indian Artillery. With the view of introducing any practicable improvements in the existing Field Ordnance as a temporary expedient, until the Armstrong Guns can be supplied in sufficient numbers from England, experiments were made to improve by Rifling the existing Field Ordnance, and to increase the range of Projectiles.

Surveys.—The Mahsood Wuzeree Country on the Northern Trans-Indus Frontier was surveyed by Major T. P. Walker, 1st Assistant Great Trigonometrical Survey, and his Assistants, during the Military Expedition in April and May 1860 under command of Brigadier General Chamberlain. There was very satisfactory progress in the general operations of the Great Trigonometrical Survey, including the Kashmir Meridional Series, which was greatly advanced, and the Northern and Southern Sections of the Great Indus Series of Triangulation and Levelling, which were completed. The Triangulation of the Assam Longitudinal Series was suspended, in consequence of the operations over a difficult tract of country necessitating an increased establishment, which it was not deemed expedient at the present time to grant. The Triangulation was therefore

diverted from the neighbourhood of Gowhatty, and extended south across the Kasya Hills *viâ* Cherra Poonjee into Sylhet. Some progress was made in the operations of the Coast Series. The final Maps and Records of the Topographical Survey of Jhelum and Rawul Pindee were finished, and the party employed on that duty was transferred to the Survey of Gwalior and Rajpootana. In the Madras Presidency the Topographical Survey of the Hyderabad and Ganjam Series progressed satisfactorily.

Amalgamation of the British and Indian Armies.—A Special Commission was appointed to consider and report on the arrangements necessary for carrying out the amalgamation of the Indian Army with Her Majesty's British Forces, in accordance with the Royal Warrant and the orders of Her Majesty's Government. The General Order of 10th April 1861, explains the principles for the formation of Staff Corps in each of the Presidencies of Bengal, Madras, and Bombay, as well as the conditions on which the amalgamation is to be carried out. The annexed shews the results :—

ABSTRACT.

	Officers.			Non-Commissioned Officers and Men.				
	General Service.	Local Service.	Staff Corps.	General Service.	Local Service.	Discharge.	To join Regiments of British Army serving in India.	Total Non-Commissioned Officers and Men.
Artillery	200	7	1	2,960	279	338	0	3,577
Cavalry	55	14	0	1,385	24	96	3	1,508
Infantry	82	131	164	2,618	88	3	18	2,727
Sappers and Miners	0	1	0	85	7	0	0	92
Detached employ or Unattached List	0	0	0	59	33	0	0	92
Grand Total	337	153	165	7,107	431	437	21	7,996

Volunteer Rifle Corps.—A disposition having been manifested in several parts of India to form Volunteer Rifle Corps, the Government of India, in a General Order No. 274, dated the 23rd March 1861, explained the conditions on which their organization would be recognized and encouraged by Government.

Volunteer Rifle Corps were accordingly formed at Calcutta, Howrah, Rangoon, Allahabad, Lucknow, Fyzabad, Lahore and Simla, as well as in the other Presidencies.

The Barrack Department, which in 1858 was constituted as a distinct body, subordinate to the Quarter Master General, was modified by assigning the duties appertaining to the charge and repair of buildings and to the conservancy of the Station, to the Public Works Department, to which Department also the supply and repair of Barrack furniture are to revert. The Commissariat and Ordnance Departments were respectively charged with the supply and care of certain of the articles belonging to Barracks, and the Regimental Quarter Master with all arrangements for providing establishments for punkahs, tatties, and conservancy purposes.

The Outram Institute at Dum-Dum was established in the Bengal Artillery Mess House, and a monthly allowance of Rs. 116 was sanctioned. A similar institution was established by general subscription at Allahabad, for which a donation of 700 Rupees, and a monthly allowance of 54 Rupees, were allowed by Government. Preliminary steps were taken for opening an "Outram Institute" also at Bareilly. The Lieutenant Governor, North-Western Provinces, sanctioned Rupees 2,500 for the purchase of a house, and enquiries were being made as to the probable monthly expenses of lighting and establishments.

Clothing.—The Indian authorities were entrusted with the duty heretofore performed by the War Department in England, of supplying the whole of the Clothing, as well as all Military Stores, to Her Majesty's Troops serving in India. Orders were issued for the immediate abolition of the Khedda Establishment at Dacca.

Reduction of the European Army.—The following Statements exhibit the strength of the European Forces on the 1st May 1860, and 1st May 1861, the difference in numbers and the financial effect of the difference being deduced by general averages.

	1st May 1860.	1st May 1861.	Difference.	Annual rates of general average.	Annual financial effect of difference.
				Rs.	Rs.
Calcutta ...	50,488	47,950	2,538	at 1,100	27,91,800
Madras ...	15,033	15,152	.....	.....	.....
Bombay ...	15,707	12,737	2,970	at 1,100	32,67,000
			5,508	at 1,100	60,58,800

	Scale of 1st May 1860.		Proposed future Scale.	
	Effective strength.	Cost.	Effective strength.	Cost.
Calcutta ...	50,488	5,55,36,800	44,916	4,94,07,600
Madras ...	15,033	1,65,36,300	15,161	1,66,77,100
Bombay ...	15,707	1,72,77,700	13,509	1,48,50,000
Total	81,228	8,93,50,800	73,577	8,09,34,700

Deduct proposed cost ... 809,34,700

Total Rs. ... 84,16,100, difference in favor of proposed scale.

The Reduction of the Native Army was announced in the Resolution of Government dated 3rd May 1861. The Establishment of Native *Infantry* in the Indian Army is henceforward fixed as follows:—

	Battns.
Under the Government of India	13
Bengal Army, including all Sikh and Punjab Regiments	60
Madras Army	52
Pegu Sapper Battalion, temporary	1
Bombay Army	30
Total ...	156

This gives a total strength of about 1,11,112 men of all ranks, Native Officers included, against a total of 1,75,177 of all ranks on the 1st of October 1859, shewing a reduction of more than 64,065 men of all ranks, and a saving fully equal to one crore of Rupees, or one million sterling. A large reduction in the Native *Cavalry* was under consideration. In Bengal it was intended to disband 11 Regiments, making a saving of about 22 lakhs per annum, besides Establishments.

General Reductions.—Besides these savings there were others. In Bengal, the Commissariat expenditure has decreased from 400 lakhs per annum, in 1858-59, to the comparatively moderate sum of 188 lakhs, this reduction being effected by curtailing the Transport Establishments—20,259 head of cattle, 646 elephants,

and 23,133 camels having been dispensed with; prohibiting any further accumulation of reserve stock, such as wines, teas, and malt liquor, by enforcing the wider extension of the contract system; cutting down and subjecting to strict surveillance the demands of other Departments on the Commissariat; those of the Ordnance Department having been reduced from 17½ to 9 lakhs, and those of the Barrack Department lowered. A reduction in the cost of rations took place by the publication of priced lists. The system of comparing contract rates at different Stations, the adjustment of arrears, whereby unnecessary establishments have been greatly diminished, the substitution of Heavy Batteries for Siege Trains, and various measures introduced by the Military Finance Department, aided in the reduction of Commissariat expenditure, which was still falling, with every prospect of being fixed at 9 lakhs per mensem or 108 lakhs per annum.

Great reductions were made in the expenditure of the Ordnance Department, both as regards the cost of Establishments and of material. The demand for Europe Stores for the current official year did not exceed 16 lakhs, being lower than that of the Bombay Presidency.

In the Medical Department the demands for stock were greatly reduced, and an entire revision of the method of account hitherto pursued in the Department was being initiated.

In the Madras Presidency the total charges of the Commissariat Department, which rose from 57¼ lakhs in 1856-57 to 125½ lakhs in 1858-59, were estimated at 67 lakhs for the official year 1860-61. The amount of charges, extraordinary, had fallen by 33 lakhs, including a decrease of 17 lakhs on account of transport charges. Barrack Department supplies had been decreased by 1¼ lakhs, Camp Equipage 1¼ lakhs, Ordnance supplies 1 lakh, Malt Liquor from England 2 lakhs, Clothing 1¼ lakhs, Commissariat Establishments ¾ lakhs, Remount Department 12 lakhs, Hospital supplies 1 lakh, Public Cattle Department 3¾ lakhs, Grain and Provision Department 3½ lakhs. The demands of the Ordnance Department for Europe Stores had been reduced to 3 lakhs in 1860-61, against 43½ lakhs in 1858-59. The Arsenal Establishments had been reduced to the extent of 1¼ lakhs per annum, and a saving of an equal amount effected by decreasing Camp Equipage Establishments.

In Bombay the Commissariat expenditure in 1859-60 was less than that of 1858-59 by 27 lakhs, and during the present official year it is expected to have been 18 lakhs per annum less than in 1859-60. In the Ordnance Department several Depôts,

such as those at Ahmednugger, Sholapore, Malligaum, and Neemuch we in course of abolition, and the demands for stores had also been diminished to 20 lakhs for 1860-61.

Gunpowder.—The out-turn last year from Ishapore was the largest on record. The manufacture cost 11 annas 7 pie more per 100lbs. than formerly, but this slight increase is accounted for by the enhanced price of materials and labor.

The Military Force in Pegu was fixed at

Artillery.	*Infantry.*
1 Horse Battery and	2 European Regiments.
2 Reserve Companies.	4 Native Regiments.

with due proportion of Staff and Establishments ; the estimated annual cost of which is Rupees 29,95,000, shewing a saving of about 35,00,000 Rupees every year on the original establishment.

Moveable Columns.—The Military Finance Commission suggested arrangements for their reorganisation. The strength and composition of these Columns in the three Presidencies was fixed as follows :—

BENGAL.

9 Batteries of Arty.	Field Pieces	54	
9 Battalions of European Infy.	7650	Non-Com. Rank. and File.	
6 Squadrons of European Cavy.	840	ditto	ditto.
12 Battalions of Native Infantry	8400	ditto	ditto.
6 Squadrons of Native Cavalry	780	ditto	ditto.

with seven days' supplies of all kinds for Europeans, and two days' rations, &c., for Native ranks as well as horses, together with spare ammunition at 60 rounds per man for Infantry, and 20 rounds for Cavalry ; sick carriage being provided at 5 per cent. of the above strength. The total strength of the Moveable Columns at Madras and Bombay is not, together, to exceed one-third of the strength fixed for the Bengal Presidency.

Military Roads.—Enquiries were instituted relative to the present state of all Military lines of communication, and the measures in progress to improve them, preparatory to the issue of orders for perfecting the roads up to a standard of efficiency, which will admit of a cart with a pair of average bullocks travelling three miles an hour with a load of 1,000 lbs. weight.

ADMINISTRATION OF PORT BLAIR.

1860-61.

THE Report, for the year 1860, is furnished by Captain J. C. Haughton, the Superintendent, who trusts the Results will not be considered unsatisfactory—considering that we were al-

most without experience of the soil, climate, and capabilities of the Settlement,—in fact, that the position was entirely a new one, this being the only instance in which the British have made a Settlement in Asia unaided by an indigenous population. The health of the Settlement was the primary consideration. Thirty-six acres were cleared on Atalanta Point. With a view to meet any attack on the Settlement by the Aborigines, a path, 50 feet wide, was cleared from the Atalanta Settlement to Navy Bay. A tract of 18 acres between Point Hood and Phœnix Bay, in extension of the clearing called Haddo, was cleared wholly, and 12 acres of underwood, leaving the heavy timber standing. The entire surface of Ross and Viper Islands, the former of which was entirely, and the latter almost, cleared by Dr. Walker, was brought under cultivation. The common Indian vegetables succeeded, except garlic, onions and peas; rice failed to yield a satisfactory crop. The cocoanut will be planted extensively. The Nipa palm and mangrove bark abound and will prove most profitable. The bullet-wood tree is the only wood that can be obtained hard enough for certain requirements of the Arsenal. There is a gum apparently not differing from copal. The wood-oil tree abounds, and may yield hereafter a valuable article for export. A small seam of coal was found while digging a well on Viper Island.

Progress was made in Public Works. The Superintendent's House was finished, also a Hospital, three houses for clerks, and an iron roofed godown for the Commissariat. On Chatham Island two houses were erected, and on Atalanta Point a large barrack with leaf roof. On Viper Island a long building for convicts was finished. The Store Vessel, the *Walter Morrice*, had a shingle roof put upon her; moorings for vessels were laid down off Chatham Island; the dangers in the Harbour were buoyed, and a re-survey of it nearly completed. The Middle Straits, which separate the Southern of the three principal Islands from the central one, were examined, and found to afford a safe passage for steam vessels of moderate size, whereby a saving of 100 miles to vessels following the ordinary course in the voyage to and from Calcutta may be effected; but to render the passage available to strangers a minute survey is still required.

The Convicts.—Their behaviour was on the whole good. Nearly all the hundred Burmans were thieves, but there were no outbreaks nor conspiracies. The number of convicts self-supporting had risen from 143 to 284, and artizans of all sorts had been encouraged. Convict artizans were gradually enabling the Settlement to dispense with all hired labour :—

Statement showing increase and decrease of Convicts in the Settlement of Port Blair from its establishment to 31st December, 1860.

Years.	Remaining from year previous.	Received.	Total.	Died in Hospital during the year.				Died out of Hospital.					Grand Total of deaths.	Escaped.	Released.	Transferred.	Total.	Grand Total of decrease.	Remaining.
				By natural causes.	Suicide.	Accident.	Total.	By natural causes.	Suicide.	Accident.	Executed.	Total.							
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1858 March to December only.	...	1,949	1,949	327	1	1	329	...	3	2	87	92	421	178	6	...	184	605	1,344
1859	1,344	1,813	3,157	1,105	6	2	1,113	2	1	11	4	18	1,131	158	49	9	216	1,347	1,810
1860	1,810	733	2,543	267	1	...	268	5	...	...	...	5	273	43	22	3	68	341	2,202

The health of the Settlement improved; the supply of vegetables was more than sufficient, yet there was still scurvy. The constitution of the Burman is best suited to the climate. The mortality amongst convicts was less than it frequently was in some Jails a few years ago. The use of flesh in many instances proved beneficial. Fowls were bred in numbers and sold at from Rs. 1-8 to Rs. 3 each.

Aborigines.—They abstained from any combined attacks, and their aggressions were trivial. None of them were killed, and it is doubtful if one was even wounded during the year.

CULTURABLE WASTE LANDS IN INDIA.

1861.

On the 16th March 1859, Lord Stanley, Secretary of State for India, when expressing his approval of the sale to Mr. Atherton of the Bengal Civil Service of 1,000 acres of land in Kangra, called attention to his despatch of 22nd December 1858, authorising the sale of waste lands and the redemption of the land tax of India, and asked the Government of India for information as to the waste lands at their disposal. "You will then submit it to me in a condensed form, accompanied by a statement of the conditions which, having regard to the difference in the systems of Revenue Administration prevailing in the respective localities, you would recommend for disposing of such lands, either for terms of years, or in perpetuity, to persons desirous of bringing them into cultivation. Your report should distinguish, as far as possible, the present state of these culturable tracts; whether they are covered with timber forests, or consist of grass plains interspersed with jheels, capable of being drained; or if they are tracts requiring expensive artificial means to make them productive. Her Majesty's Government will then be enabled to afford to applicants in this country an amount of information respecting the facilities offered to persons proposing to settle in India for agricultural purposes, which they are not now in a condition to furnish." On the 17th October 1861 the Governor General in Council agreed to a Resolution, authorizing the sale of waste lands in perpetuity discharged from all prospective

demand on account of land revenue, and permitting the redemption of the existing land revenue by the immediate payment of one sum equal in value to the revenue redeemed. This was accompanied by the publication of "Papers regarding Culturable Waste Lands, at the disposal of Government" such as Lord Stanley had called for. The Papers consist of the replies of the chief revenue officials of the various presidencies and provinces throughout India.

Madras.—The total extent of culturable waste land is given at 13,554,333 acres. But of this large extent only a limited part is at the absolute disposal of Government; the remainder being subject to certain established and recognised rights of the village communities. Only a very small proportion of the whole also can be regarded as at all suited to the purposes of European settlers. The estimated assessment is Rs. 1,63,15,353 at the average rate on the cultivation. Of this, the extent of land which might be classed as "wet," that is, irrigated by natural sources or within the influence of artificial irrigation, is estimated at acres 2,017,109, and that of unirrigated at acres 11,537,224. Most part of this land is scattered over a wide extent of country. There may be here and there compact blocks sufficiently large to form convenient holdings or properties, but most of these would be found to be covered with thick jungles, and could not be brought under cultivation without much labor and capital.

Statement showing the Extent and Assessment of Culturable Lands in the several Districts of the Madras Presidency at the absolute disposal of Government.

Districts.	Irrigated.		Unirrigated.		Total.	
	Extent.	Assessment.	Extent.	Assessment.	Extent.	Assessment.
		Rupees.		Rupees.		Rupees.
1. Ganjam	7,097	18,514	5,364	9,506	12,461	28,020
2. Vizagapatam	1,714	22,041	1,386	8,229	3,100	30,270
3. Rajahmundry ...	34,743	43,802	1,37,516	1,29,667	1,72,259	1,73,469
4. Masulipatam	1,26,862	3,42,932	94,329	37,522	2,21,191	3,80,474
5. Guntoor	12,676	73,554	4,67,098	6,60,948	4,79,774	7,34,502
6. Nellore	55,162	4,68,809	3,62,059	4,50,658	4,17,221	9,19,467
7. Cuddapah	45,726	3,23,180	24,91,021	13,95,025	25,36,747	17,18,205
8. Bellary	69,265	5,76,283	33,89,555	6,84,503	34,58,820	12,60,786
9. Kurnool	2,959	25,688	3,76,475	4,83,788	3,79,434	5,09,476
10. Chingleput	2,38,330	7,34,884	2,60,745	3,66,358	4,99,075	11,01,242
11. North Arcot	64,523	9,46,946	3,61,610	1,88,537	4,26,128	11,35,483
12. South Arcot	68,609	3,32,575	8,80,606	14,17,499	9,49,215	17,50,074
13. Tanjore	30,704	3,45,873	1,14,612	2,57,978	1,45,316	6,03,851
14. Trichinopoly	21,194	1,92,670	5,99,653	13,41,622	6,20,847	15,34,292
15. Madura	3,317	1,33,715	6,48,604	7,10,810	6,51,921	8,44,525
16. Tinnevelly	79,090	9,23,219	7,06,843	8,62,049	7,85,933	17,85,268
17. Coimbatore	12,290	81,364	13,73,555	10,42,176	13,85,845	11,23,540
18. Salem	12,989	91,183	3,96,057	5,91,226	4,09,046	6,82,409
Total	20,17,109	55,75,232	1,15,37,224	1,07,40,121	1,35,54,333	1,63,15,353

Bombay.—The result of the Reports submitted is briefly summed up thus:—*First.*—The land available is of the poorer sort, and in detached pieces, not suited for farms. *Second.*—In Districts where the available land is in larger tracts, the climate is deadly to the European constitution. *Third.*—This Presidency does not offer facilities to settlers with a view to agricultural pursuits. Reducing the beegahs to acres, the result is

Sholapore,	414,433	Ahmedabad,	218,415
Rutnagherry,	5,902	Kaira,	73,846
Dharwar,	178,847	Broach,	8,000
Poona,	141,192	Surat,	95,410
Belgaum,	218,542	Tanna,	8,552
Sattara,	331,315	Khandeish,	1,635,666

Mr. Tytler reports of Ahmednuggur that the waste of that zillah was only 14 per cent. in 1857-58, and is steadily decreasing at the rate of 2 per cent. per annum. Mr. Turquand is of opinion that in Rutnagherry, where population presses so heavily on the means of subsistence, a very favorable opening is afforded to European settlers, who can bring capital, skill, and energy to the work, for reclaiming large tracts of land from the sea at numerous points of the whole coast. Of Dharwar, Mr. Stewart Gordon says the best kind of land is already under cultivation, and that no large tracts of good land, which could be brought into cultivation without much expense, are available. Mr. G. Inverarity declares of Poona that land cannot be found in sufficient quantity to induce settlers, desirous of compact and moderately-sized farms, to locate themselves on the spot; Mr. Seton-Karr reports of Belgaum that it is doubtful, if even 500 acres of unoccupied culturable land of good quality could be found close enough together to admit of those improvements which require a large area for their profitable application, or of effective superintendence by a single person. Mr. Rose of Sattara quotes the experience of Mr. Dickinson, a practical farmer in the neighbourhood of Joonere, who says the climate of the Bombay Presidency is, perhaps, not so much against the settling of European agriculturists of steady habits, as the difficulty there exists in obtaining land of good or average quality of any extent, say 10 or 12 acres, or perhaps half of that in one place near to a European station. "For a European to settle down on this side of India with his own tools and his own ideas and knowledge of farming, as in other countries, endeavouring to do much himself, and expecting to be helped in the same way, without a previous knowledge of the people, and without an amount of patience that is rare to be met with, he would meet with certain disappointment. It certainly is more advantageous in speculating in this country in a mercan-

tile way, to expend capital in the purchase of the raw produce of any description in the Districts; there is less to do with many of the Natives, for the middlemen manage the contracts and bargains, although in the presence of the principal agent, and there is at all times less exposure to the climate. Without the least prejudice to the introduction of European settlers on this side of India, (for I should be glad to see many located in the Districts as I am,) still I adhere to the reasons above stated, that the difficulties to be overcome are greater, and of a different character to those of other countries, notwithstanding the cheapness in the labor rate and competition with the ryot, whose wants and comforts are few and unequal."

Sind.—Major Merewether reports that, with the exception of a very small portion, the whole of the culturable land in the Frontier Districts belongs to Government, and that not already disposed of can be given by grant to any who may require it. The area of the Frontier Districts not available mounts to 2,028 square miles. The nature of the land may be divided into two classes: the low wet land, near the bank of the Indus, a belt varying from 6 to 12 miles in width, and extending from Mittree, North of Kusmore, to the mouth of the Biggaree, a distance of about 60 miles, mostly annually flooded, and the dry land removed from the bank of the river, inside the above, which is cultivated during the high season by means of canals bringing water from the Indus. With all its advantages of soil, facilities for irrigation, &c., the climate, however, of Upper Sind, is such as to render it a very doubtful field for European enterprise. The heat during the summer months is severe.

North Western Provinces.—The results may be thus summarised in acres

Kumaon—a limited extent suited for tea.			
Dehra Doon, ...	... ...		204,526
Mahadeo Hills, Gondwana,	thousands of square miles.		
Jubbulpore,	25,180 square miles.		
Saharunpore,	12,858	Singrowlee,	34,452
Bijnore,	124,368	Gorruckpore,	189,508
Shajehanpore,	56,000		

In Kumaon Major Ramsay reports that at the foot of the hills lie many thousands of acres known as the Bhabur and Terai; but the climate is so deadly that none but natives of those parts can live there. The Commissioner observes that the tracts in Saharunpore lie under the Sewalik range, are unhealthy, are subject to the ravages of wild animals, and offer formidable difficulties to European settlers. Those in Bijnore are more favorably situated for European enterprise. The whole tract

of Shajehanpore is well known, especially near the Mala Swamp, to be unsuited to Europeans. In Singrowlee, or properly Bicheepar, the country is rocky, water is scarce and the territory has been traversed by rebel bands. Of Gorruckpore it is said that the surface of the country is undulating; and, in general terms, the uplands may be considered tolerably healthy, the low lands deadly. Of this available land one-third may be estimated to represent the area of the jungle tract, which traverses the District diagonally from the River Raptee to the North-west, to the point where it branches right and left into the Nepaul Terai.

Jubbulpore is broken by ranges of hills, tracts of jungle, grass plains, and lands of surpassing fertility, of which the cultivation has been much neglected. If the Nerbudda were navigable as the Ganges or the Gogra, the prosperity of this large extent of country could scarcely be estimated. When the railway is finished Mundla on the Eastern side, with a sanatarium at Amarkuntuk, would appear to offer a suitable field for enterprise, though from the listless character of the Gond population, the influx of settlers of an industrious class must be the first point to be secured. The range of such enterprise is not to be computed in acres, but in hundreds, or even thousands of square miles. The District of Baitool at the other extremity, is smaller in extent and more hilly, with large tracts of land, to which human industry has hardly penetrated. In both these tracts there is an almost inexhaustible supply of timber, and generally no want of water.

Bengal.—The following summary is compiled from the returns.

In the hills there are

Cossiah Hills,	very large area.	Cachar,		200,000
Chittagong		Darjeeling,		250,000
Mymensingh,		Kamroop,	Assam.	179,560
Garrow Hills,		Nowgong,		1,205,609
Sylhet,		Sibsagur,		1,612,636
Bhaugulpore,		Luckimpore,		1,471,728
Chota Nagpore,		Akyab,		3,152,000
North Cachar,				

In the plains

Baraset,	5,289	Hooghly,	139
Soonderbuns,	809,643	Midnapore,	3,247
Bullooah,	2,500	Dinagepore,	25,861
Ramree,	1,200,000	Moorshedabad,	1,189
Sandoway,	8,000	Bogra,	A large tract.
Burdwan,	680		

Mr. Yule, the Commissioner, remarks on the Damun-i-koh of Bhaugulpore that there may be 500 square miles of land—half of it level and half hill, which science and capital might render pro-

ductive, but whether the produce would pay is a question which experience only can answer. The low rich flats in the Damun are almost entirely cultivated. There are some such places still waste, which the erection of large embankments and other measures would render richly productive in rice, but, generally speaking, the 250 level square miles must be considered as a mass of elevations of varying height, with perhaps a little level land at the top, and each cut off from its neighbours by depressions. The soil in these elevations is dry and of no great natural fertility, so that, except immediately surrounding a village, a field is cultivated only one or two years, and then allowed to be fallow for several. The crops consist of oil seeds, maize, millet, leguminous grains, and a little cotton; they would be vastly improved by a better system of manuring, and, above all, by irrigation. Coffee would succeed, and so would indigo grown for its seed only. Manuring is easy, but irrigation would be difficult and costly, because there are few extensive levels or slopes which could be watered from one pool or by one set of works. It is well worth while, however, to make the attempt to have these waste lands taken in hand by Europeans.

In Darjeeling 200,000 of the acres are mountain territory at an altitude of from 1,000 to 12,000 feet above the sea, described as chiefly under heavy forest. The surface soil, varying in depth from 6 to 18 inches, is a vegetable mould mixed with sand and mica: in some places the soil is loose and gravelly. The vegetable mould is highly productive, and to the cultivation of it the natives apply themselves almost exclusively, taking two, three, and sometimes four crops out of it, and then abandoning it for fresh localities; the land, after lying fallow from four to eight years, is again ready for cultivation. Rice of various kinds ripens up to 3,500 or 4,000 feet, and within that range millet, sugar-cane, cotton, barley, buck-wheat, Indian corn, potatoes, ginger, cardamums, gourds, pumpkins, cucumbers, and other vegetables thrive. Indian-corn ripens up to 5,000 or 5,500 feet, but not higher; potatoes are excellent up to 8,000 feet. Of higher elevations no account is given. Wheat, it is supposed, will not ripen at elevations above 5,500 feet. The tea plant flourishes at all elevations up to 7,000 feet; it has not been tried higher up. Coffee has been tried only at Kurseong, 3,500 feet, and is promising. The cost of forest clearance for tea planting is reckoned at £8 per acre, and the total outlay on tea cultivation, until it becomes productive, may be cited at £30 per acre. An acre will yield 2,500 trees, and after the fourth year three trees will yield 1 lb. of tea per annum.

Nowgong in Assam is said to consist of undulating hill

lands, with tree,* forest, and grass and reed jungles, fit for the cultivation of tea, cotton, sugar-cane, and other dry crops; there are jheels and swamps in this tract, the drainage of which would involve an enormous outlay. The Sibsagur and Luckimpore lands are capable of producing coffee, castor oil, and a variety of fibrous plants. One-fourth of the area should be deducted for rivers, roads, swamps, &c., the latter are partly capable of drainage. The details of the Cossyah and Jynteah Hills are given :—

Sub-divisions.	Culturable waste land.			Remarks.
	Grass Jungle.	Forest Jungle.	Total Waste.	
	Acres.	*Acres.*	*Acres.*	
Semi-Independent Cossyah States	65,000	15,000	80,000	The grass jungle is nearly all high land, not capable of being irrigated, but the forest jungle is generally intersected by rivulets, and the soil is rich and productive.
Dependent Cossyah States..	1,85,000	35,000	2,20,000	
Conquered British villages of Sooper, Moosmai, Mamloo, Bynny, and Lailongkote ...	2,000	1,000	3,000	
Jynteah Hill Territory ...	1,20,000	30,000	1,50,000	
Total	3,72,000	81,000	4,53,000	

Punjab.—In the hills there may be said to be the following :—

Simla,	22,995	Jheelum,	3,279
Kangra,	16,136	Dehra Ismael Khan,	474,880
Dehra Gazee Khan,	24,349	Kohat,	16,479
Sealkote,	67,083	Hoshiarpore,	15,000

In the plains :—

Umballa,	13,917	Jhung,	1,737,571
Jullundur,	1,136	Googaira,	1,636,242
Lahore,	225,057	Moozufferghur,	17,134
Goojranwallah,	174,357	Leiah,	1,750,000
Ferozepore,	399,414	Hissar,	1,902
Umritsur,	16,505	Jhujjur,	11,925
Goojerat,	64,196	Sirsa,	467
Shahpore,	574,309	Rhotuck,	2,375
Mooltan,	1,510,388		

The Financial Commissioner remarks :—"The 800 acres of land at Kotegurh is the only tract at the absolute dis-

posal of Government, which can at once be pronounced both suitable from its climate for colonisation, and desirable from its known productive powers for the investment of capital. The tracts of forest land on the slopes of the Himalayas in the newly acquired Pergunnah of Nalaghur, might not improbably be suitable for tea plantation, and their elevation of 3,000 feet secures a mean temperature considerably lower than that of the plains, though hardly a climate that may be called temperate. At Kotekhaee there are 2,600 acres of culturable land, but the elevation (9,000 feet) would appear too great, and the fall of snow too considerable to render it suitable for the purposes of colonisation, though the place might answer well as a sanatarium. In the hill tracts of Huzara and Murree, it is asserted, there is not an acre of available land, and in the desirable District of Kangra the waste lands were made over at the time of settlement to villages. In the latter case a proposition has already been made for rectifying the omission of the settlement officer, to assert the right of Government to forest and surplus waste lands; and I am now in communication with the Commissioner of Rawul Pindee as regards the Murree Hills. Apart from considerations of climate, the tracts which offer a field for European capital and enterprise are the following: the 1,116 acres in the fertile Doab of Jullundhur; the waste lands in Hoshiarpoor; the large tracts of forest or rather jungle land in the Districts of Lahore, Goojranwala, Umritsur, and perhaps Googaira and Mooltan."

Oudh.—The return shows the lands available for Europeans or other settlers; but this will be greatly diminished by grants to Natives of Oudh, so that, as a general proposition, it may be affirmed that it is only North of the Gogra and in the Mohumdee District that lands will be available for European enterprise. The difficulties are thus described. It is easy enough for the acclimated inhabitants of the neighbourhood to clear by degrees the part contiguous to their own dwellings; but the European speculator must bring his cultivators from a distance. He must make them advances, and build them houses; and if sickness breaks out among them (which it is sure to do at first, for the locality is naturally insalubrious, and breaking up a virgin soil aggravates the malaria,) many will die, and the rest will take to flight. His advances are lost, and he must begin anew. The possession of large capital alone can overcome these difficulties, which have attended almost every European grantee in an unhealthy region. Primæval forests are always unhealthy, and they mainly constitute the tracts at the disposal of the Government. The culturable wastes are:—

Seetapore,	... 8,500	Baraitch,	... 98,300
Durriabad,	... 5,731	Gondah,	... 98,340
Hurdui,	... 29,327	Mahomdee,	... 188,045

Tenasserim and Martaban Provinces.—The number of acres of culturable land is shown to be 14,176,011. This result has been obtained by deducting in the Tenasserim Province one-third, and in the Martaban Province half, from the aggregate area of land not yet brought under cultivation; the proportions of one-third and half being allowed for the area taken up by hill, river, and dense jungle. The nature of these culturable tracts may be characterised as jungly, being for the most part covered with few spreading wildernesses of undergrowth, in which large forest trees are thickly intermingled. Plains, covered with tall rank grass, and interspersed with jheels, are not unfrequent; to bring them under cultivation extensive draining would be necessary.

Province.	Area in square miles.	Area in acres.	Area of cultivated land in acres.	Area of culturable land in acres.	Area of jungle land in acres.
Tenasserim ...	28,000	17,920,000	177,114	11,828,591	5,914,295
Martaban ...	9,000	5,760,000	65,159	2,347,420	2,347,421
Total ...	37,000	23,680,000	242,273	14,176,011	8,261,716

Pegu.—From the total area of forests in hills shown below, must be deducted about 7,000 square miles of teak forests.

DISTRICTS.	CLASSES OF LAND. 1. Forest on Hills.		2. Forest on Plains including Mangrove.		3. Bush Jungle.		4. Reed and Elephant Grass.		5. Short Grass.		Total.	
	Square Miles.	Acres.	Square miles.	Acres.	Square miles.	Acres.	Square miles.	Acres.	Square miles.	Acres.	Square miles.	Acres.
1. Rangoon...	1,500	0	2,250	0	1,500	0	1,100	0	600	0	6,950	0
2. Bassein ...	1,228	54	3,395	416	362	584	2,127	553	31	21	7,145	549
3. Prome ...	3,367	572	414	558	413	532	281	193	197	518	4,675	453
4. Henzada...	960	0	240	0	0	0	834	0	0	0	2,034	0
5. Tharrawaddy ...	1,182	608	547	457	17	189	122	208	5	357	1,875	539
6. Toungoo ...	4,907	240	287	190	155	495	113	370	19	190	5,485	205
Total ...	13,146	194	7,137	341	2,449	520	4,579	44	853	446	28,166	266

Mysore.—In a memorandum on the suitableness of the Mysore climate for Europeans, Dr. J. Kirkpatrick shews that, with the exception of Bangalore and its neighbourhood, the climate will nowhere admit with safety of the out-door labor of Europeans; and that even in these favored parts the labor must be confined to a few hours in the cool of the day, while the climate of the western parts adjoining the Ghats, the most agreeable to the feeling, and the most favorable for the cultivation of coffee, is so far from being congenial to the European constitution, that most of the planters, notwithstanding that they do not work with their own hands, and are only subject to the exposure necessary to superintend the labor of others, have been driven away for the restoration of health. The Cantonment of Bangalore, nearly in the centre of the division, and about 3,000 feet above the sea, has long been known as the healthiest European station in the south of India, and in its neighbourhood Europeans might settle with every prospect of enjoying good health, though perhaps they would not retain quite the vigor, or attain the average longevity they would in their native land. But they could not engage in actual hard labour out of doors, so as to earn a livelihood by it.

Estimated extent and nature of unoccupied Lands in the four Divisions of Mysore.

No.	Division.	Unoccupied Lands.				Particulars.			Remarks.
		Dry.	Wet.	Garden.	Total.	Under Forest and Jungle.	Immemorial Waste Lands.	Belonging to deserted villages.	
		Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	
1	Astagram ...	7,84,013	31,076	1,530	8,16,619	3,43,801	4,31,905	40,913	The revenue system which prevails in Mysore is Ryotwar, some of the rents being taken in money, others in kind. The latter was originally the case with coffee, but at present a share of the crop is commuted for an excise duty of four annas per maund.
2	Bangalore ...	4,65,533	81,351	255	5,47,139	92,562	4,20,449	34,128	
3	Chittledroog ...	12,95,748	68,112	1,146	13,65,006	2,84,744	9,38,409	1,41,853	
4	Nuggur ...	99,012	80,539	9,046	1,88,597	25,791	1,23,964	38,842	
	Total ...	26,44,306	2,61,078	11,977	29,17,361	7,46,898	19,14,727	2,55,736	

Hyderabad.—Colonel Davidson, the Resident, is of opinion that our Government could give no valid proprietary right in the Hyderabad Assigned Districts, because the Nizam has reserved his sovereignty, and he alone can dispose of the soil. As Dharaseo and Raichore have, since these Papers were compiled, been restored to the Nizam, we give the waste area of East and West Berar which are respectively 465,741 and 544,375 acres. "The Northern frontier of West Berar," says Mr. Bullock, "being the Sathpoora range of hills, is very sparsely populated by a wild race called "Ghonds." Their occupation is agricultural and pastoral, but they are few in number, and very timid in disposition. To a certain extent their aid might be made available by a capitalist, but he would require to introduce cultivators from the low land. The whole of this range of hills might be divided into blocks and granted in perpetuity, or by long leases, to European capitalists, with every advantage to the Government. At present the land revenue of the whole range does not exceed 13,000 or 14,000 Rupees: this is paid by the Ghonds who cultivate occasional patches of land. The country consists of upland, varying in height, rising in one part to perhaps 3,000 feet above the sea, and running down on either side northward towards the Taptee river, and southward into the Valley of Berar. There is little or no cultivable land at the foot of the hills towards the valley, but there are some very fertile tracts lying towards the Taptee. That river is fed by numerous streams from these hills, and these streams usually contain running water, and are capable of being dammed up. There is therefore room for considerable improvement, and, I think, profitable speculation for an enterprising capitalist in and about the Sathpoora range. On the eastern portion of East Berar, which is bounded throughout by the river Weerdah, there are still large tracts of waste land very fertile, and with the advantage of a river which falls into the Godavery, and comes within the reach of the eastern coast by water carriage, provided Colonel Cotton's views on that subject are carried out. I am not sanguine that water navigation from Berar to Coringah will ever succeed as a speculation, but should it do so, any farms occupied on the line of the Weerdah by European capitalists would become profitable. The soil on the right bank of the river produces good cotton, wheat, and other valuable grains and oil plants, and a great deal of it is still lying waste, but it is fast being taken up on terminable leases by Native settlers from the Nagpore side. The climate without being bad is not better than in other low lands."

Nagpore.—The Province has not yet been surveyed. Of the five districts into which it is divided there are waste

	Acres.
Nagpore	8
Raepore	493,384
Chandah	32,707
Chindwarrah	2,000

The figures are approximate. The lands shown in the return in the Chanda District, a wild country in its character, may be more quickly improved. In some Pergunnahs there are old tanks requiring but little outlay to repair them, and so improve the country, and add to its cultivated area.

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